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#### [VBR Registry Keys and Config Options](#)

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There is a number of values in the registry you may want to tune Veeam B&R: enabling alternative methods, increasing timeouts or changing default locations.

**Don't apply if the description is not clear for you.**

**Any of the keys that don't exist in default installation or written in KB article or release notes are not officially supported and are supposed to be provided only in case of emergency or during troubleshooting. They shouldn't be a solution unless written on the issue page on xWiki.**

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Some registry values without descriptions or orphaned ones were moved to a different page [Orphaned or unclear registry keys](#)

Enterprise Manager registry values can be found [here](#).

**By default all values** should be added to the following registry key:  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\

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Some 32-bit services are located under the following key (and it should be noticed in the description of reg value if you need to put it there):  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\

For Linux based proxy or repository you will need to manually create the 'VeeamAgentConfig' file in the /etc/ directory like so:  
/etc/VeeamAgentConfig

And then write a key with a value in the following fashion:  
CollectBackupStat=1

All **numeric values are in decimal unless otherwise noted**. Any time you see a value in the format like (4\*60) where there is math involved, this is meant as an example of the default value. Perform the math and that is the value (in this case, 240). Check the Reg Value name to understand what the metric is. If there isn't a metric mentioned (e.g., ms, sec, min, hour), you can ask in T2/T3 Chat.

Most values are read by the Veeam Backup Service, some values are read by other services or processes.

Most registry values are rescanned automatically almost instantly (during 10-30 seconds). No services restart is needed.

Some keys apply during next job run. For example, Veeam agent's keys apply when new VeeamAgent.exe starts.

General

#### **BackupServerPort**

- Type: REG\_DWORD
- Default value: 9392
- Description: defines a port for Veeam Backup Service.

#### **BrokerServicePort**

- Type: REG\_DWORD

- Default value: 9501
- Description: defines a port for Veeam Broker Service.

### **LogBrokerUpdates**

- Type: REG\_DWORD
- Default value: 0
- Description: enables extended Broker Service logging.

### **CatalogPath**

- Type: REG\_SZ
- Description: Location of the VBRCatalog folder that contains indexing data. To be changed in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup Catalog and restart Veeam Guest Catalog Service is required

### **CloudServerPort**

- Type: REG\_DWORD
- Default value: 10003
- Description: defines a port for Veeam Cloud Connect Service.

### **EndPointServerPort**

- Type: REG\_DWORD
- Default value: 10001
- Description: defines a port for incoming connections from Veeam Endpoint Backup.

### **LinuxEndPointServerSslPort**

- Type: REG\_DWORD
- Default value: 10006
- Description: defines a port for incoming connections from Veeam Agent for Linux.

### **LinuxSSHAuthenticationType**

- Type: REG\_DWORD
- Default value: 1
- Description: changes the order in which Linux Auth modes are used. Value 1 - means first we try to login to Linux machine via Password auth type, and if fails we use Keyboard-Interactive. Value 2 makes it vice versa: first Keyboard-Interactive, then PWD

### **SshAdditionalTtyPrompts**

- Type: REG\_DWORD
- Default value: Empty
- Value: Alphanumeric, for example in case of the PS1 variable from the logs was = "\u@\h:\w/ [{ORACLE\_SID}]\${BE\_PDB:+.\$BE\_PDB}]" value should be "]"
- Description: If the bash prompt ends in some special characters, VBR will be unable to parse it. The code currently accounts for terminal prompts that end in \$ # > % and spaces. This key will add another character to this code.

### **Remoting\_UseIPAddress**

- Type: REG\_SZ
- Default value: true
- Description: control whether Veeam B&R must send its local IP or not (should be set to "false" to allow Veeam EM to connect over NAT). Apply on VBR.

### **Remoting\_MachineName**

- Type: REG\_SZ

- Default value: none
- Description: keeps FQDN of the Veeam B&R, then if DNS won't work, make sure your hosts file on Veeam EM server has an entry for the FQDN pointing to the external IP address. Apply on VBR. EM must be able to resolve FQDN or HostName through DNS or hosts file.

### **RetentionDisableBackupDeletion**

- Type: REG\_DWORD
- Default value: 0 (enabled)
- Description: disables Background Retention Job, if the value is set to 1
- In v12 is deprecated and replaced by key SystemRetentionDisable

### **SystemRetentionDisable**

- Type: REG\_DWORD
- Default value: 0
- Description: Description: The key disables automatic start of Independent Retention process. It is though still possible to start it manually via UI
- In v12 replaces keys AgentDisableDeletedMachineRetention and RetentionDisableBackupDeletion

### **PowerShellManagerPort**

- Type: REG\_DWORD
- Default value: 8732
- Description: defines a port for PowerShell Manager

### **SecurityScopeRebuildTimeout**

- Type: REG\_DWORD
- Default value: 60
- Description: The key should be created on EM server in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup Reporting.

### **SqlDatabaseName**

- Type: REG\_SZ
- Default value: VeeamBackup
- Description: Name of Veeam SQL database. The best way to change it is via "Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on whether MSSQL or PGSQL is in use.
  - v11 and earlier: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
  - v12 MSSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql
  - v12 PGSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\PostgreSql

### **SqlInstanceName**

- Type: REG\_SZ
- Default value: VeeamSQL2016 (for VBR 10 or later)
- Description: Name of SQL server instance hosting Veeam database. The best way to change it is via "Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on version of VBR

- o v11 and earlier: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
- o v12 MSSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql

### **SqlServerName**

- Type: REG\_SZ
- Default value: Equals to VBR server name
- Description: Name of SQL server hosting Veeam database. The best way to change it is via "Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on version of VBR
  - o v11 and earlier: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
  - o v12 MSSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql

### **SQLExpressWarningThreshold**

- Type: DWORD
- Default Value = 90
- Notes: Decimal Value, measured in percent. The warning threshold for when an Alert will be triggered for SQL express DB. Checks once per day. Added in: v11

### **SqlStatementTimeout**

- Type: REG\_DWORD
- Default value: 180
- Description: Helps to mitigate error "Execution Timeout Expired. The timeout period elapsed prior to completion of the operation or the server is not responding". The default is 3 minutes, so if 3 minutes passes in the logs between the beginning of operation till the error - it is a good indication that this timeout has been exceeded.
- As of v12 there are now different registry paths to use depending on whether MSSQL or PGSQL is in use.
  - o v11 and earlier: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
  - o v12 MSSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql
  - o v12 PGSQL: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\PostgreSql

### **MetaGenerationTimeout**

- Type: DWORD
- Default Value = 900 (15 minutes)
- Notes: Use in case metadata generation times out after 15 minutes. See case 05137332 as the prime example.

### **DatabaseDeadlockRetrySleepTime**

- Type: REG\_DWORD
- Default value: 2

- Description: when SQL server hosting Veeam database deadlock happens, after number of seconds set by the key SQL query retries. It can be helpful to increase this value to 10-15-30, if there are lots of deadlocks at the same time. Which can increase processing time, but resolve issue. Default value might be increased in v11.

### **EnableAsyncMount**

- Type: REG\_DWORD
- Default value: 1
- Description: switch to 0 to make mounts in FLR and VESQL (and perhaps some other restores) to synchronous. Must be applied on the server that sends the command 'Mount.GenericMount' (in most cases it's going to be mount server, but double-check Svc.VeeamMount.log to verify that). When applied, the following parameter of the command 'Mount.GenericMount' will change to "false": "Mounter.AsyncMode = true". Regkey is good for isolating recent bugs similar to 204397. According to QA, it might slow down restores, but not significantly and not necessarily.

### **DbMaintenancePeriodDays**

- Type: REG\_DWORD
- Default value: 7
- Description: Defines the frequency with which we perform the database maintenance task.

### **TombStoneRetentionPeriod**

- Type: REG\_DWORD
- Default value: 30
- Description: Defines retention of records in Tombstones tables of the database. Retention enforced on DbMaintenance task.

### **EnableDBExclusions**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Adds option in console menu to edit the list of SQL databases excluded from VSS freeze.

### **LinuxSSHClient**

- Type: REG\_DWORD
- Default value: 1 (Renci)
- Description: Introduced in V11. Allows to choose, which SSH library to use.
- Values:
  - 1 - Renci - failover to Rebex
  - 2 - Granados - failover to Renci. Then failover to Rebex
  - 3 - Rebex, in case of any failure - throw error, no failover to different libraries.
- ! To apply, you need to re-add Linux host/storage or go through its properties. Otherwise it wouldn't switch
- Mentioned in: <https://www.veeam.com/kb4276>

### **TreatDeleteSnapshotErrorAsWarning**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: ignore delete snapshot task failures and complete VM processing tasks with a warning

### **BlockSnapshotThreshold**

- Type: REG\_DWORD
- Default value: 2 (GiB)
- Description: Defines minimum free space to initiate snapshot creation task for a VM.
- Note: Starting in 9.5, you can feel safer about setting it to 0, because you can configure a percentage-based threshold in the [notification options](#).

### **FailoverPlanScriptTimeoutSec**

- Type: REG\_DWORD
- Default value: 600 (seconds)
- Description: Timeout for pre- and post-failover scripts in Replication Failover plans.

### **NfsProtocolVersion**

- Type: REG\_DWORD (NFSAuto = 0, NFSv3 = 1, NFSv41 = 2)
- Default value: 0 (Auto)
- Description: defines NFS protocol version for NFS repository (doesn't affect Direct NFS anyhow!)

### **InfrastructureCacheExpirationSec**

- Type: REG\_DWORD
- Default value: 900 (seconds)
- Description: defines the amount of time vSphere hierarchy cache is being stored. For very large infrastructures rescan could take longer than 15 minutes (default).

### **Timeout\_Sec\_JobStartedMax**

- Type: REG\_DWORD
- Default value: 900 (seconds)
- Description: defines the maximum amount of time allowed for the backup service to start a job. Can be found useful in highly loaded systems.

### **LinAgentFolder**

- Type: REG\_SZ
- Default value: /tmp
- Description: globally sets the location to which the backup server will deploy temporary Linux applications, such as on repositories and Oracle VMs.
- Notes: Be careful not to put a trailing slash in the path. Because this setting is global, setting a path to a location that doesn't exist or lacks appropriate permissions can break features involving a Linux appliance, like Other-OS FLR.

### **LinAgentExecutableFolder**

- Type: REG\_SZ
- Default value: /tmp
- Description: Same as **LinAgentFolder**, but affects VAAI MbVBR installations.

### **PreJobScriptTimeoutSec**

- Type: REG\_DWORD
- Default value: 15 \* 60
- Notes: Only applicable to VB&R tasks, will have no effect on Managed Agent backups.

### **PostJobScriptTimeoutSec**

- Type: REG\_DWORD

- Default value: 15 \* 60

### **AgentLeaseTimeoutInMinutes**

- Type: REG\_DWORD
- Default Value: 5
- Description: The Veeam Backup Service creates a lease for each VeeamAgent process, and stops the process if the lease expires. It must periodically renew each lease so that agents can exist for more than 5 minutes. You can verify the timeout in Svc.VeeamBackup.log (example is with a value of 60):

```
{{> Info [API] New lease was created. Id: [7034ffe6-ac2f-4278-8357-a5fa459f4ca2], TTL: [01:00:00]}}
```

- Notes: The most common cause of lease expiration is a [time change](#). However, if the backup service is very busy it may fail to renew a lease. This has mostly been seen in Cloud Connect Service Providers, and is under investigation. You can monitor how often a lease is renewed ("Keep lease alive") by searching for the ID in Svc.VeeamBackup.log.

### **MaxPerlSoapOperationTimeout**

- Type: REG\_DWORD
- Default value: 100000 (milliseconds)
- Description: Error "Call execution timeout (100000 ms)". See [KB1176](#).

### **IgnoreFileDeletionErrorInRetention**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Described in [KB1358](#). Current use case unclear, see [VIOA](#).

### **ShowSplashScreen**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: To hide the splash screen that appears while the console is loading, set this value to 0.

### **AnytimePermittedCommonTasksPerDatastore**

- Type: REG\_DWORD
- Default value: 1
- Description: Veeam starts to check datastore latency only when the amount of active Veeam tasks on that datastore is equal or larger than this value.

### **AnytimePermittedSnapshotCommitsPerDatastore**

- Type: REG\_DWORD
- Default value: 1
- Description: Veeam starts to check datastore latency only when the amount of active remove snapshot tasks on that datastore is equal or larger than this value.
- Notes: Caution, setting this value to 0 may lead to situations when the amount of active Veeam snapshots grows significantly.

### **PostProcessorMaxParallelThreads**

- Type: REG\_DWORD
- Default value: 4

- Description: The number of replicas to which retention is applied concurrently at the end of a Replication job. (Both VI and HV). Note that concurrent snapshot removal is also limited, by other registry values.

#### **BackupChainsUpdateTimeoutSec**

- Type: REG\_DWORD
- Default value: 15 (seconds)
- Description: Introduced in 9.5 Update 4a. The key should be created on EM server in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup Reporting. Allows customizing the interval for syncing backup chains data from VBR database to EM database. Increasing it will lighten up the load on the SQL server holding VBR database.

#### **ClientEnableUpdate**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Set to 0 to force the Console on the current server to **not** download changed files from a remote Veeam server. This can be useful if you want to simultaneously connect with Veeam Consoles to several Veeam installations with different hotfixes installed.

#### **AwsSnapshotCreationTimeoutMin**

- Type: REG\_DWORD
- Default value: 240
- Description: Defines duration for the snapshot duration task during the restore to AWS. As the value isn't big enough it may be not sufficient for the large disks hence you may need to calculate the proper value manually based on disk size and performance for block allocation in Amazon.

#### **ExtendedUILogging**

- Type: REG\_DWORD
- Default value: 0
- Description: Enables extended logging for UI caches.
- Added in: 10.0

#### **RetentionJobStartTimeHours**

- Type: REG\_DWORD
- Value: 0-23
- Description: if you want to start your Retention Job at 21:00 (09:00 PM), you should specify value 21 at RetentionJobStartTimeHours.
- Added in: 12

#### **RetentionJobStartTimeMins**

- Type: REG\_DWORD
- Value: 0-59
- Description: if you want to start your Retention Job at 00:45, you should specify value 45 at RetentionJobStartTimeMins..
- Added in: 12

#### **RetentionDaysBackupsCountMin**

- Type: REG\_DWORD
- Default value: 3



- Description: Should be created on VBR Server. *Requires VBR Service Restart*. This is the minimum number of required days to keep on storage when using Daily Retention.
- Added in: 10.0
- Referenced on this UG Page: [https://helpcenter.veeam.com/docs/backup/vsphere/retention\\_policy.html?ver=100](https://helpcenter.veeam.com/docs/backup/vsphere/retention_policy.html?ver=100)

### **TlsIncompatibleHostIps**

- Type: REG\_SZ
- Default value: 0
- Description: Value should be set as IPs of hosts, separated by commas.(i.e. 192.168.0.1, 192.168.0.2).
- Notes: V12 only. Connections to the hosts listed in the value will be created without TLS (as in version 11).

### **ConfigurationBackupSuppressEncryptionWarning**

- Type: REG\_DWORD
- Default Value: 0
- Description: Pretty much as the title says. If they do not have encryption enabled, their configuration backup will warn "Skipping credentials backup because the encryption is disabled. This will complicate the restore process significantly. Enable configuration backup encryption to stop receiving this warning."  
**Please be smarter than your customer and just convince them to enable encryption.** Only for the truly desperate and terrible offer the regvalue. Have a senior colleague advise how to avoid giving this regvalue.
- Added in: Looks to be v11 only.

### **VBRRescanExclusions**

- Type: **REG\_MULTI\_SZ**
- Default Value: empty. We exclude RECYCLE and Trash by default, but you can add more.
- Description:

The key allows you to exclude from rescan process some folders.

**Why?** Different physical solutions could use different folders for a trash bin. So now it is possible to add such folders in the key and don't care in our code for any possible places where trash bins could be.

If something was excluded, there would be this line in rescan log:

```
" Log.Message($"Skipping [{itemInfo.Name}] folder at [{Repository.Name}] repository due to the registry settings.");
```

- Added in: v12
- 

### **Additional information:**

- o A register is not taking into account (FoDeR = folder).

- o UNOFFICIALLY the key could support next prefixes: wildcard: folder\* - windows mask, regex: [Ff]old.+ - regular expressions.

Line should be written exactly like on file system.

- Example entry:

```
{{{.RECYCLE.BIN
.hidden
.trash
ignoreit
wildcard: *recycle*
wildcard: trash*
regex: .*recycle.*
regex: trash.*}}}
```

Licensing

### **ExtendedLicensingLogging**

- Type: REG\_DWORD
- Default value: 0
- Description: Turns on extended logging in different parts of licensing (e.g. during registration of instances, in license management).
- Note: See *Svc.VeeamBackup.Licensing.log* for more details. If LoggingLevel is set to 5 or 6, Licensing logging is automatically extended as well.

### **SkipLicensePush**

- Type: REG\_DWORD
- Default value: 0
- Description: prevents Enterprise manager from pushing the license to B&R server ([HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup Reporting])

Scheduler

### **VolumesDiscover\_Periodically\_Hours**

- Type: REG\_DWORD
- Default value: 4 (hours)
- Change the period of automatic rescans of the infrastructure (aka "volume host discover").

Dedupe appliances

### **DDBoostLogLevel**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport || HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup Transport
- Description: Add it on DataDomain Gateway! enables extended ddboost libraries logs

```
{{{ DDP_SEV_NONE    = 0,
DDP_SEV_ERROR      = 1,
DDP_SEV_WARN       = 2,
DDP_SEV_INFO       = 3,
```

```
DDP_SEV_DEBUG = 4,  
?super_debug? = 5}}}
```

### **StoreOnceLogLevel**

- Type: REG\_DWORD (0-5, the smaller value is set the more detailed output is retrieved)
- Default value: 5
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport (on gateway server)
- **Description: Don't apply just to get some more logs from client.** Enables extended catalyst library logs (separate CmdSession and DataSession logs in the same folders as agent logs). Note that multiple files will not be created - when a file reaches its maximum size, it will be overwritten starting from the top. So in most scenarios you need to implement the key - test and disable the key right after. Key applies immediately. It might be good to use it with the next key StoreOnceMaxLogfileSize, because 10 Mb is too small size for such logs.

```
{{OSCLT_LOG_LEVEL_EXTENDED_DEBUG = 0,                               Highest Level -  
don't put this without direct instruction from R&D Highest Level - don't put this with  
out direct instruction from R&D.  
OSCLT_LOG_LEVEL_DEBUG = 1,                                           You can try this one, but  
be careful, as it logs quite a lot too and you need to disable it right after test.  
OSCLT_LOG_LEVEL_TRACE = 2,                                           Like Info (value 3), but lo  
gs extra trace points to help debug datapath  
OSCLT_LOG_LEVEL_INFO = 3,                                           Inf Info  
OSCLT_LOG_LEVEL_QUIET = 4,                                           Like Error (value 5), but al  
so logs performance statistics for client API  
OSCLT_LOG_LEVEL_ERROR = 5                                           Lowest level}}
```

### **StoreOnceMaxLogfileSize**

- Type: REG\_DWORD (size in bytes, maximum is 4 GiB)
- Default value: 10485760 (10 MiB)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport (on gateway server)
- Description: the size of catalyst library log file to rollback. 256 Mb - 268435456, 512 Mb - 536870912.

### **StoreOnceFileSessionOverhead**

- Type: REG\_DWORD
- Default value: 2
- Description: define amount of redundant slots: for example if a task has got 4 restore points and going to create a new one it needs to request 5 file sessions (4 old + 1 new). However due to over-protection over StoreOnceFileSessionOverhead value which is 2 by default the task will request 7.

**StoreOnceResourceScanTtlSec**

- Type: REG\_DWORD
- Default value: 60 (sec)
- Description: define the amount of time after which the rescan info would be considered outdated and we need to a fresh rescan in order to work with such repository (extent)

**StoreOnceDisableSequentialRestore**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: DISCLAIMER please be sure why you use this registry value. The biggest impact would be that on Hyper-V we will create the same type of disks as on the original VM (thick/thin). By default, when restoring from SO we will create them as thin ones. This is due to the issue when creating 4T+ sized empty thick disks on Hyper-V. **Enable with care.**

**CatalystCopyDeletionGuardDays**

- Type: REG\_DWORD
- Default value: 21
- Description: specifies how many days of retention all the Catalyst Copy jobs will have. This setting affects all the jobs at once

**UseLowBandwidthMode**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport
- Location: Gateway server
- Note: Bandwidth is misspelled, be careful not to spell it correctly.
- Description: For HPE StoreOnce. Normally Veeam will use the High Bandwidth mode unless both primary and secondary modes are set to 'low' on the appliance. Setting this value to 1 will force Veeam to use Low Bandwidth mode regardless of appliance settings. Low Bandwidth mode is useful when the gateway server is across the WAN from the StoreOnce. Not needed in 9.5 because of new UI option.

**DDBoostReopenWriteFileOnTouchEnabled**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport
- Description: Enables additional keep-alive operations during NAS backup to Data Domain to avoid error 5057. More details in bug 305708 or 382424.

**DDBoostReopenWriteFileOnTouchIntervalSec**

- Type: REG\_DWORD
- Default value: 3600 (seconds)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport
- Description: Defines the interval between keep-alive operations. More details in bug 305708 or 382424.

**PluginsHostWorkerCount**

- Type: REG\_DWORD
- Default value: 4 in v11a, 16 in v12.
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport
- Description: The number of parallel operations that can be performed by VeeamPluginsHostX64.exe on StoreOnce. See related bug 436409. The key must be set on the StoreOnce gateway host. It is necessary to restart "Veeam Installer Service".

### **QuantumDisableSequentialRestore**

- Type: REG\_DWORD
- Default value: 1
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- The key switch the restore operation mode between sequential / random reads for Quantum-like repositories. It has a default value of 1 when the key is not present which means that sequential read is disabled. It can take 0 or 1 as values.

For better performance, it should be set to 0.

With key =0 this works as follows:

To accelerate the restore process, Veeam Backup & Replication creates a map of data blocks in backup files. It uses the created map to read data blocks of VM disks from backup files sequentially, as they reside on disk. Veeam Backup & Replication writes data blocks to target in the order in which they come from the target Veeam Data Mover, restoring several VM disks in parallel.

Repository/Storage

### **RefsVirtualSyntheticDisabled**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0
- Description: By default, Veeam Backup & Replication uses Fast Clone for all backup repositories that meet the specified requirements. You can disable this option with this value. To be configured on Veeam Backup and Replication server itself.

### **DisableVBKRename**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: See [KB1076](#). Useful if you want to copy the latest full using third-party products that need a consistent file name.

### **ForceCreateMissingVBK**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Enables support for rotated drives. With this functionality enabled, if any backup file from the latest full backup chain is missing (such as when the existing hard drive is replaced by another one), jobs will start the new backup

chain and create the new full backup (instead of failing out).  
Set to 1 to enable support for rotated drives.

### **ForceDeleteBackupFiles**

- Type: REG\_DWORD
- Value: 3 (delete the entire contents of the backup job's folder only)
- Value: 5 (delete the entire contents of the root backup repository folder)

### **ForceTransform**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: When set to 1, will trigger synthetic full on every job run.

### **StorageLockTimeout**

- Type: REG\_DWORD
- Default value: 300 (seconds)
- Description: defines a timeout that should release lock on the backup storage

### **Smb2RetryCount**

- Type: REG\_DWORD
- Default value: 15
- Description: defines amount of retries verifying storage existence on the target

### **SobrTransferMetaViaAgents**

- Type: REG\_DWORD
- Default value: 1
- Description: If set to 0 revert behavior to pre-v10 when Veeam used VBR service and a transport on a SOBR extent to transfer meta. Please note it's not recommended way plus can reflect on extent's CPU usage.

### **SOBRFullCompressRate**

- Type: REG\_DWORD
- Default value: 50 (percent)
- Description: override the estimated space VM would take on SOBR in a full backup. % of VM size (check Original Size in backup set properties). You might want to reduce this value in case of a "No scale-out repository extents have sufficient disk space to store the backup file" error. See [Bug 125348](#) for hotfix to accommodate for ReFS+FastClone or Storeonce+Catalyst, and other exceptions. New name of this reg value in 9.5U4 is SOBRSyntheticFullCompressRate. Added in V.10: It controls only the initial full backup size estimation

### **SOBRSyntheticFullCompressRate**

- Type: REG\_DWORD
- Default value: 100 (percent)
- Description: override the estimated space VM would take on SOBR in a full backup. % of previous full backup size. You might want to reduce this value in case of a "No scale-out repository extents have sufficient disk space to store the backup file" error. Only valid for 95u4 and later. Please keep in mind that the key won't work for BCJ out of the box and check [186346](#)!  
In Veeam Cloud Connect scenario this key should be set on a tenant side.  
V.10: It controls Synthetic full and Synthetic GFS size estimation

### **SOBRIncrementCompressRate**

- Type: REG\_DWORD
- Default value: 10 (percent)
- Description: override the estimated space VM would take on SOBR in an incremental backup. % of VM used size.  
V.10: it controls the initial increment/rollback size estimation. % of previous VBK size

### **SOBRFullSizeEstimatePercent**

- Type: REG\_DWORD
- Default value: 100 (percent)
- Description: V.10: it controls Active full, BCJ Active full, BCJ GFS Active full size estimation. % of previous VBK size

### **SOBRIncrementSizeEstimatePercent**

- Type: REG\_DWORD
- Default value: 100 (percent)
- Description: V.10: it controls second and forth increment/rollback size estimation. % of previous VIB/VRB size.

### **SOBRTransformRate**

- Type: REG\_DWORD
- Default value: 10 (percent)
- Description: override the estimated space rollback or merge task will take on SOBR. % of VM used size in case of rollback, % of existing .vbk size in case of merge and transform to rollback.

### **SOBREvacuateRate**

- Type: REG\_DWORD

- Default value: 100 (percent)
- Description: Control the space estimate of the source data set during SOBR E vacuation. For example, setting the key value to 50 will cause Veeam to estimate 50% of the storage size in source. This new estimate value will then be used in the size check before evacuation kicks in. This can help in cases where you wish to evacuate towards a dedup-friendly extent, however you must make sure that all data will fit in the destination.

### **SobrReserveExtentSpacePercent**

- Type: REG\_DWORD
- Default value: 1 (percent)
- Description: defines the amount of free space reserved on the extents of SOBR, e.g. for merge (% of total extent size).

### **SobrForceExtentSpaceUpdate**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: enables advanced SOBR extents free space update logic. With this set to 1 (enabled) service updates cached extent free space every time task is assigned. 9.5 U2 or above

### **SOBRShowAllProxyInstanceTypes**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Allows us to switch back to the classic view of instance type for the archiving job with all options available except too weak and too powerful, not just 3 user-friendly options

### **SshFingerprintCheck**

- Type: REG\_DWORD
- Default value: 1 (true)
- Description: Disable by setting to 0 (false) to work around "Failed to check fingerprint" errors for SSH communication. Usually only needed for clusters of Linux servers or HP storage integration. Added in v9 update 1.  
Note: it will not suppress the UI warning in managed host Wizard, only the applies to jobs and re-scans.

### **UseUnbufferedAccess**

- Type: REG\_DWORD
- Default value: 0 (false) pre v11, 1 (true) after v11



- Description: Enable to force unbuffered access analogous to diskspd -h that will disallow Windows caching and may improve write performance to CIFS. 9.0 Update 1 required. Does NOT work with REFS shares!
- Note: Apply with caution! May cause errors described in bug 224579.
- Important note: According to thread "RE: [RND][VBR][10GA][04248730][Buhl Data Service GmbH] Flush to repository is somehow 5 times longer in case if VM is processed by multiple proxies instead of one" unbuffered access in v.10 can cause corruption during restores. It should not be used until v.11 is out. Even with v11, please use this key judiciously. It should be faster in basically every situation to use UnbufferedAccess, and if it's not, we need to know why  
**The key is no longer used from V12 and is replaced by DataMoverLegacyIOMode key**

### **DataMoverLegacyIOMode**

- Type: REG\_DWORD
- Default value: 0 (false)
- Description: The key controls how VeeamAgent works with storages. By default the storage files are opened in unbuffered asynchronous mode. If the key is set to 1, then they are opened in buffered synchronous mode. Note that this option will degrade the backup speed. (The key replaces UseUnbufferedAccess, DisableHtAsyncio, StgAsyncRead keys (these keys are ignored from V12)). See: <https://wiki.support2.veeam.local/bin/view/Main/Internal%20Technical%20Docs/Veeam%20Backup%20and%20Replication/Veeam-Backup-Replication-New-Features/VBR-v12-features-list/Minor-changes-VBR-v12/>

### **UIShowLegacyBlockSize**

- Type: REG\_DWORD
- Default value: 0 (False)
- Description: Available since 11a. Put 1 to show in UI "Extra large blocksize" - 8 Mb. Also noted in Release notes for 11a: <https://www.veeam.com/kb4215>

### **ResourceScanDefaultTTLRepositorySec**

- Type: REG\_DWORD
- Default value: 900 (seconds)
- Description: Default timeout during which information about extent in DB (availability and free space) is considered to be actual

### **DoNotCreateHeartbeatFile**

- Type: REG\_DWORD
- Default value: 0 (false)
- Description: When set to 1 disables creating heartbeat.bin file on SOBR extents.

### **ObjectStorageTlsRevocationCheck**

- Type: REG\_DWORD
- Default value: 1
- Description: **v12** - This parameter enables the certificate revocation check, which is performed every time connecting to the object storage.
- Location (Windows): Set on the gateway/repository used for object storage.

- o 0 - Disabled, revocation check is disabled completely.
  - o 1 - Enabled.
- Location (Linux): Edit **/etc/VeeamAgentConfig** to set the option on Linux systems.

### **ObjectStorageCRLCheckMode**

- Type: REG\_DWORD
- Default value: 1
- Description: this key controls SSL certificate checks with jobs going to/from capacity tier; has four different modes :
  - o 0 - all issues with capacity tier certificates will abort the job
  - o 1 - default; OfflineRevocation status is ignored, all other errors = failure
  - o 2 - ignore OfflineRevocation and WarningRevocationStatusUnknown errors
  - o 3 - ignore all above + PartialChain error.

### **UseCachedSshConnections**

- Type: REG\_DWORD
- Default value: 1. 0 in all other cases.
- Description: Enables SSH connection cache. \*Does not require restarting the service. NOTE: Running cloud installations without SSH caching could result in unexpected and uncontrolled failures, excessive CPU and RAM usage. Moreover, there are a lot of bugs in SSH (both Renci and Granados) which are solved by the caching mechanism and all tests in our R&D labs are performed with UseCachedSshConnections = 1. Therefore, disabling cache by setting the registry key UseCachedSshConnections = 0 in case of Cloud installations is prohibited or should be approved by Senior or T3 engineer.

### **SkipLinuxAgentRemoval**

- Type: REG\_DWORD
- Default value: 1 (for Cloud Connect infrastructures starting from 9.5u4). 0 in all other cases.
- Description: Allows backup server to re-use existing Linux datamover, instead of re-deploying it each time. \*Does not require restarting the service.

### **Nfs4LibLogLevel**

- Type: REG\_DWORD
- Default value: 2
- Description: Log level on Windows for NFS 4.1 repository. **0** (Debug) is the most detailed. **1** (Trace) is better if you're troubleshooting. We're using this library: [GitHub - kofemann/ms-nfs41-client: NFSv4.1/pNFS client for Windows 7 developed by CITI, UMICH](#). In order for the registry parameter to take effect, restart Veeam Installer Service on the host where it is set.
- Added in v10

### **NfsLinuxMountOptions**

- Type: REG\_MULTI\_SZ
- Default values (both are overwritten with this registry value):
  - o rw,soft,retrans=1,timeo=1 when the NFS connection is tested
  - o rw,soft,timeo=600,retrans=5,intr when backing up
- Description: Set custom parameters for NFS shares accessed VIA LINUX GATEWAYS. **v10+**

- Example: 172.24.30.34:/data;rw,soft,vers=3

### **NfsShareVersions**

- Type: REG\_MULTI\_SZ
- Default value: autodetected.
- Description: Forcibly set the NFS version for shares accessed VIA WINDOWS GATEWAYS. Supported options are "3" and "4.1". Additionally, you must click through the wizard for this to take effect. **v10+.**
- Example: 172.24.30.34:/data;3

### **SshFileLoaderTimeoutSec**

- Type: REG\_DWORD
- Default value: 300 (seconds)
- Description: timeout for opening of vbm file via SSH.
- Added in v10

### **SobrsFileCommanderCachingForced**

- Type: REG\_DWORD
- Default value: 0
- Description: Set to 1 to enable FileCommander Caching, might be useful if SQL log or Agent Managed backup jobs keep plenty of connections to ports 6160 on target SOBR extents consuming many dynamic ports on a VBR server
- Applicable only to Veeam Backup and Replication v.9.5 update 4 and newer. In v10 this caching is enabled by default

### **SkipServerPermanentCredentialsExistenceValidation**

- Type: REG\_DWORD
- Default Value: 0
- Version: v11 and on
- Description: By default, you cannot use Linux hosts which serve as [Hardened Repositories](#) as [Helper Hosts](#) for OtherOS restores. The Restore Agent must run with elevated privileges, and this means that it violates the security model of the Hardened Repository (root can remove the immutable attribute always). **Never use this registry value except for absolutely dire emergencies.** We always have the option to fall-back to using the temporary [Helper Appliance](#) (Step 1) and deploy that. Yes, this key is a big threat (theoretically), so don't give it out randomly or at all, just use common sense please. **Unless you're SWAT and in an absolutely ridiculously messed up situation, you don't need this reg value and neither does your customer.**

### Logging

#### **LogDirectory**

- Type: String
- Default value:
- Description: path to the log folder

#### **AgentLogging**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: enable agent logging

#### **LoggingLevel**

- Type: REG\_DWORD
- Default value: 4 (normal)

- Description: specify logging level (0 - disabled to 6 - debug). Most of logging hidden behind this parameter is database-related, so it only really makes sense to adjust this if you want to figure out what stored procedures hide behind some of the business logic operations. Setting it to 5 is usually enough. Logs can become much harder to read, so you should have some idea of what you are looking for to make sense of them. Log level 6 forces Veeam to log even more SQL interactions with the DB, a few debug traces here and there, some UI-related stuff. Enabling it on large Veeam infrastructures could lead to overloading storage where the logs are written, so be careful with it. Rule of thumb is - you sometimes need LL5 for DB related issues and you barely ever need LL6.
- Add an entry under "HKEY\_CURRENT\_USER\Software\Veeam\Veeam Backup and Replication" if you want to increase the logging level of the Veeam Console.

**\\NB: Increasing this value will not help you when you are troubleshooting Storage Integration issues. Instead, use the keys mentioned in SAN Integration paragraph. For more details, please refer to [Basic Storage Integration Troubleshooting/](#)**

#### **ExportLogArchiveMode**

- Type: REG\_DWORD
- Default value: 0
- Description: Used to control single/multithreaded compression during Support Log export
  - Value = 0 (Single Core)
  - Value = 1 (Optimal - Minimum CPU\2 up to a maximum of 6)
  - Value = 2 (Half Cores - CPU\2)
  - Value = 3 (IonicZip - Legacy compression logic in v12 or older)
- **Available in v12.1 at release.**
- **Available in v12 CP3 by hotfix only <https://xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/Bug-582637>**

#### **VDDKLogLevel**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: enable VDDK output in the agent logs. Disabling this is sometimes useful to remove delays from the job, especially in Direct SAN mode.

#### **CollectBackupStat**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during backup or replication sessions. Should be set on each server (Proxy, Repository) you want to generate agent PerfData.

#### **CollectRestoreStat**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (enabled)

- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during restore sessions

#### **CollectSocketEvents**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (enabled)
- Description: force agent includes event related to operation to socket in the dump file (C:\ProgramData\Veeam\Backup\PerfData\Agentn.<PID>.<Time>.bin)

#### **CollectTapeStat**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (enabled)
- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during tape job sessions

#### **LogVssKeepSnapshotEvents**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)

#### **MaxLogCount**

- Type: REG\_DWORD
- Default value: 10
- Description: defines the number of rollback files (works only for Veeam server logs, for SQL log backup jobs is controlled by different reg value)

#### **MaxLogSize**

- Type: REG\_DWORD
- Default value: 10\*1024 (kilobytes)
- Description: defines the maximum size of the log file (works only for Veeam server Job logs and Task logs, for SQL log backup jobs is controlled by different reg value. Agent logs (including Capacity Tier Gate logs) are controlled by [AgentMaxLogSize](#)).

#### **SQLJobMaxLogCount**

- Type: REG\_DWORD
- Default value: 1
- Description: defines the number of rollback files for SQL log backup jobs files

#### **SQLJobMaxLogSize**

- Type: REG\_DWORD
- Default value: 10\*1024 (kilobytes)
- Description: defines the maximum size of the log files for SQL log backup jobs files. Except some degree of variance, the logging system cannot hard-stop at a specific value so you may see some additional size from the written value

#### **UncompressedLogsMaxTotalSize**

- Type: DWORD
- Default value: 512000 (kilobytes)
- Description: Total size of uncompressed logs, applies per job (works only for Veeam server logs)

#### **LogsArchiveLifetimeInDays**

- Type: DWORD

- Default value: E (14 decimal)
- Description: defines the log files age after which it will be archived (works only for Veeam server logs). Example: if MaxLogSize is reached, the log file will be split. Once the age is reached, all job files will be archived including agent logs if they are located on the backup server.

### **LogsArchivesMaxCount**

- Type: DWORD
- Default value: 10
- Description: Total amount of archived generations of logs. Example: Svc.VeeamBackup.1.gz Svc.VeeamBackup.2.gz (works only for Veeam server logs)

### **RTSDetailedLogging**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Value = 1 (advanced logging)
- Value = 2 (extreme logging)
- **Please use wisely and remove after log collection, it adds too much extra data into the logs.**
- run in cmd as admin to show current proxy usage: "C:\Program Files\Veeam\Backup and Replication\Backup\Veeam.Backup.Manager.exe" - ShowProxyUsages

### **AsynchronousLogging**

- Type: REG\_DWORD
- Default value: 0
- Description: Enables asynchronous logging in 9.5 update 3. Recommended value 1.

### **AgentMaxLogSize**

- Type: REG\_DWORD
- Default value: 20 \* 1024 \* 1024 (decimal, in Bytes)
- Description: defines maximum size of an AGENT log file (so it should be applied if you want to decrease or increase log size on your proxy) Expect some degree of variance, the logging system cannot hard-stop at a specific value so you may see some additional size from the written value.

Should be added here:

HKLM\SOFTWARE\Veeam\Veeam Backup and Replication

On the proxy in question.

Apply to the following location on the CDP proxy to affect CDP logging:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam CDP Proxy Service

### **AgentMaxLogCount**

- Type: REG\_DWORD
- Default value: 50 (decimal)
- Description: defines amount of the AGENT rollback files (so it should be applied if you want to decrease log number on your proxy)

Should be added here:

HKLM\SOFTWARE\Veeam\Veeam Backup and Replication

On the proxy in question.

Apply to the following location on the CDP proxy to affect CDP logging:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam CDP Proxy Service

### **KerberosExtendedLogging**

- Type: REG\_DWORD
- Default value: 0
- Description: Controls extended logging of SPNs used during connection, invaluable for Kerberos authentication troubleshooting. Set to 1 to enable Kerberos logging
- added in v12

Instant Recovery

### **IRReadCacheBlockSize**

- Type: DWORD
- Default value: 524288 (256 KB if backup file block size is 256 KB, and 512 KB if it's larger)
- Description: Specifies the block size used when reading data from the storage array during IR. Must be created on Mount Server.

File copy job

### **RpcRetryConnect**

- Type: DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Specifies if RPC operation should retry

### **RpcUniqueBindingDisable**

- Type: DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: By default unique RPC binding is set in order to comply with MS update 3067505. Set this key to 1 in case of file copy job RPC errors. Specified windows update should be uninstalled as well

### **RpcRetryDelayMs**

- Type: DWORD
- Default value: 10000 (in milliseconds = 10 seconds)
- Description: Timeout before RPC operation retry

Tapes

### **EnableScsiChanger**

- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Tape
- Type: REG\_DWORD

- Default value: 0 (Disabled)
- Description: Used on tape server. Enable it for old devices or devices that do not have vendor drivers available for Windows; mostly does the same thing as [the checkbox in the library settings](#). Even if the checkbox is checked, dumpinformation.xml might be incomplete without this registry value.

### **TapeRetrySleepInMs**

- Type: REG\_DWORD
- Default value: 1000
- Description: interval between retries upon encountering "device busy, device disconnected, ". Has to be added to both HKLM\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication and HKLM\SOFTWARE\Veeam\Veeam Backup and Replication

### **TapeBlockSize**

- Type: REG\_DWORD
- Default value: Drive default, usually 65536
- Description: **Value should be power of 2!** Sets a blocksize for "setTapeMediaBlockSizeToDrive" agent command, only supports block sizes that are supported by device AND media (see devmgmt). In v9, block size can be [set in the GUI](#) for each drive, instead of set globally in the registry.

### **TapeTransferBlockSize**

- Type: REG\_DWORD
- Default value: 2097152 (2 MB)
- Description: **Value should be power of 2!** Key defines the blocksize in bytes for the Veeam Agent to read the data in tape jobs. Should be set on both sides where Veeam Agent is started, source and target ones

### **TapeCheckBlockHeaderCrc**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: Check tape blocks for data corruption

### **SkipTapeAlerts**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: force Veeam skipping alerts coming from tape drive

### **TapeAgentScriptTimeoutSec**

- Type: REG\_DWORD



- Default value: 30 \* 60 (sec)
- Description: Influences the duration of the 'executeTapeScript' command's execution. In case the agent does not respond within this time out's value (30 mins default), then we get : throw new Exception("Script execution timed out"). Increase the value of the time out as needed.

### **TapeDeviceNotReadyTimeoutSec**

- Type: REG\_DWORD
- Default value: 60 (sec)
- Description: in v9 the key should be created on the server where the Tape Service runs in HKLM\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Tape. In v8 SOFTWARE\Veeam\Veeam Backup and Replication\.

### **BarcodeScannerInstalled**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: - (undefined)
- Description: define if Barcode scanner is installed in the library or not. **Try not to use this registry key at all. If customer insists on this key usage make sure he understands the consequences.**

### **TapeIgnoreSoftwareEom**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Disables our own end of media tracking. Please make sure the device supports hardware EOM - otherwise, this key should not be used ever in your whole life. Yes, it is that dangerous.

### **TapeSoftwareEOMInMb**

- Type: REG\_DWORD
- Default value: 5\*1024 (5 GB)
- Description: Does what you think it does. If you set it to more than 10% of the tape capacity, EOM detection will happen every 10% of total space / 2MB

### **TapeDetectSoftwareEOMEveryMb**

- Type: REG\_DWORD
- Default value: 2\*1024 (2GB)
- Description: How often we check whether software EOM is due

### **TapeMinFileSizeWithCompressionAndMultistreaming**

- Type: REG\_DWORD
- Default value: 128 (this value is in MB)

- Description: defines min file size, for which traffic compression and multistreaming should be used. **Should be set on the source server (repo) in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication** \Should be set on the source server (repo) in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\.  
For Linux source servers it will be always 128MB. **If reg key is used, you will see following in agent logs: < 4644> TAPE MINIMUM FILE SIZE WITH COMPRESSION AND MULTISTREAMING IN MB: 6553** If reg key is used, you will see following in agent logs: < 4644> TAPE MINIMUM FILE SIZE WITH COMPRESSION AND MULTISTREAMING IN MB: 65536

## **TapeDevices**

- Type: REG\_MULTI\_SZ
- Links: [KB Article](#) or [xwiki article](#)

## **TapeGFSBackupWaitTimeout**

- Type: REG\_DWORD
- Default value: 1440 (1440 min = 1 day)
- Description: Added in v9u2. Specify a value in minutes that GFS jobs should wait for new restore points. By default GFS job starts at 00:00 and waits for the new restore points for up to 24h before failing over to taking the previous restore point.

## **TapeWaitForActiveStorageTimeoutInHours**

- Type: REG\_DWORD
- Default value:
- Description: Specify a value in hours that GFS jobs should wait for the active restore point (locked by the source job). By default GFS job waits for up to 7 days till the lock is released. If the value is 0, GFS job will immediately switch to the previous storage.

## **TapeIgnoreReturnMediaToOriginalSlot**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: See [KB1943](#)

## **DisableEjectWarning**

- Type: REG\_DWORD
- Default value: 0 (disabled - Warnings show up)
- Description: Enable or disable the "Failed to eject some tapes" warning (bug 90894). Works starting from v9.5U1

### **TapeMaxSlotsToRequest**

- Type: REG\_DWORD
- Default value: 75
- Description: Modifies the amount of slots per single rescan request. Default value might cause duplicate barcodes appear in DB after each rescan

### **TapeGfsExpiredMediumSharing**

- Type: REG\_DWORD
- Default value: 0
- Description: when set to 1 expired tapes in GFS MediaPool are allowed to move between GFS MediaSets automatically and ignore media\_set\_type. Implemented in U4

### **TapeGFSMissedBackupNotification**

- Type: REG\_DWORD
- Default value: n/a
- Description: allows to show following messages as Info (Green) or Warning (Yellow)

- Synthesized full backup was not created for [date]: there are no new restore points between [date] and [date]

- [TBD] SynDate [date] Analyzing. No backup files found for required date or in previous interval ([date],[date]). Most likely, virtual full backup has already been archived to tape.

- No days found between previous date and current date. No backup files can be added as candidates for [date]

- 

Values:

Key not set in the registry (default): all the messages mentioned above would be shown as Info (Green) only for daily-mediaset and for all of the mediasets in Tenant to tape job.

Key set to 0: all the messages are going to be Info (Green).

Key set to any value > 0: all the message would be Warnings (Yellow).

### **NdmpBackupSocketTimeoutInMin**

- Type: REG\_QWORD (**ATTENTION! QWORD**, not DWORD!)
- Default value: 10

- Description: Sets NDMP socket timeout. Key should be applied on both sides where VeeamAgent is started, Tape Server and NDMP Gateway server. In the logs value can be confirmed with the line "Start receiving NDMP data. Ndm socket timeout is \* sec"

### **TapeForceHwEncryption**

- Location: TAPE SERVER
- Type: REG\_DWORD
- Default value: 0
- Description: Set the key to 1 if your customer wants to restore from the encrypted tape backups written in Update 3a and earlier and receives "Tape drive doesn't support hardware encryption".
- **NOTE: to be used only for restore purposes. Should be removed by technical support engineers immediately once restore is done.**

### **TapeRebuildOnlyRetriedTasks**

- Location: VBR
- Type: REG\_DWORD
- Default value: 1
- Description: in version 10, we changed the logic of retrying tasks in tape jobs during rebuild. In v10, if rebuild is initiated, we set only those tasks to retry which are **not successful (default behavior)**, when in v9.5 and earlier we retried all tasks. If you want to revert the old logic (retry ALL tasks), please set this key to 0.

### **TapeDisableCartridgeMemoryUsage**

- Location: VBR
- Type: REG\_DWORD
- Default value: 0
- Description: the key disables writing to the tape chip. Could be set to 1 if writing to tape medium chip fails with 1117 error; see <https://xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/Bug-188601> for more detail.
- **NOTE: before applying, make sure first that the customer is not going to use WORM tapes, since WORM tapes functionality will be broken (WORM usage requires writing to chip).**

### **TapeMediumSortByUsageStatistics**

- Location: VBR
- Type: REG\_DWORD
- Default value: 1

- Description: the key is made to revert the old tape selection logic (by barcodes). The default value is 1 (sort by usage, effective since 9.5 U4); to switch to tape selection set this key to 0.

### **TapeDetectZeroBitChanger**

- Location: TAPE SERVER
- Type: REG\_DWORD
- Default value: 0
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Tape
- Description: the key made specifically for the IBM changers 3584 (TS3500/TS4500). Due to some changer peculiarities (bug 207155), we don't receive such changers drives serial numbers and therefore don't display the library / its drives in VBR console. Set the key to 1 if you're facing this situation (works **ONLY in v10**, for v9.5 you'll need to obtain the fix).

### **WaitForSequenceReaderCreationSec**

- Location: VBR
- Type: REG\_DWORD
- Default value: 3600 per job or "№ of disks \* 5 minutes for each disk" (if №>12)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- Rare registry key, might help if you try to restore such VM from tape which has many disks and restore fails with "Failed to wait for sequential reader creation"

### **TapeBackupLocksResolution**

- Location: VBR
- Type: REG\_DWORD
- Default value: 1
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- Introduced in: v12 CP2
- Set to 0 to revert the backup locks behaviour to how it worked in v11a. This will help with tape jobs failing with the "Stopped by job <source\_BJ\_name> (Backup)" error.

### **MaxFilePathForTapeBackup =====**

- Location: Tape Server
- Type: REG\_DWORD
- Default value: 3000

- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- Set to larger value (6000, for example) to support long file paths for tape jobs if they fail with "File path ##### is too long. The maximum length is 3000".

### **TapeEnableTrace**

- Location: Tape server
- Type: REG\_DWORD
- Default value: 0
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- This option enables/disables external (each tape-operation) logging.

### **ScsiLogEachCommand**

- Location: Tape server
- Type: REG\_DWORD
- Default value: 0
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- Set 1 to log all scsi commands in Svc.VeeamTape.log file. Needs to restart the service. Please do not use without RnD\QA request.

VSS

### **IndexerMaxNestedFolders**

- Type: REG\_DWORD
- Default value: 0 (no depth limit)
- Description: Sets maximum depth for created index. Files and folders with higher depth will not be indexed. Should be created on guest in HKLM\Software\Veeam\Veeam Backup and Replication
- Available values: N (number of folders in the file\folder path+1), usually 30 is sufficient.

### **VeeamGuestIndexerPriority**

- Type: REG\_SZ
- Default value: BACKGROUND
- Description: Sets process priority for indexing process. Should be set on guest in HKLM\Software\Veeam\Veeam Backup And Replication
- Available values: BACKGROUND, ABOVE\_NORMAL, BELOW\_NORMAL, HIGH, IDLE, NORMAL, REALTIME

### **DisableBackupComponentsXmlCollectionForJobs**

- Type: REG\_MULTI\_SZ

- Default value: none
- Description: Disables collection of BackupComponents.xml for specified jobs

### **MaxGuestScriptTimeoutSec**

- Type: REG\_DWORD
- Default value: 600
- Description: Timeout for pre-freeze and post-thaw scripts, in seconds.

### **MicrosoftWindowsRPCServiceTestConnectionTimeoutSec**

- Type: REG\_DWORD
- Default value: 3 (sec.)
- Description: In v11a, an additional check was implemented to validate admin\$ share availability via SMB. Apart from uploading some temp files to admin\$ share, now we also check whether TCP port 135 is open. In some setups, the default timeout may appear not to be enough to pass this additional check (see case # 05056696).
- Notes: If you face the same issue and tried this key, even if it helped, please notify Nadezhda.Ponamareva@veeam.com. We need to count the number of affected customers, to possibly adjust the default value in future releases.

### **vixOperationTimeoutSec**

- Type: REG\_DWORD
- Default value: 15 \* 60
- Description: clear from the name

### **vixExecutionTimeoutSec**

- Type: REG\_DWORD
- Default value: 60 \* 60
- Description: clear from the name

### **InverseVssProtocolOrder**

- Type: REG\_DWORD (0 False, 1 True)
- Value = 1 (enabled - VIX first)
- Default value = 0 (disabled - \\admin\$ first)
- Description:
  - Place registry value in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication (no services need to be restarted)
  - for GIP key needs to be created in HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication (no services need to be restarted)

- o for VBR key needs to be created in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication (no services need to be restarted)
- o **VBR 11+**  
InverseVssProtocolOrder **only** needs to be placed on the Veeam Backup Server. Also, starting with v11, it now affects Linux guest processing.
- o **VBR 9 - 10a**  
The key is read by both VBR (manager) and GIP (vss proxy svc)

### **HvVssPowerShellDirectPriorityOverNetwork**

- Type: REG\_DWORD
- Value = 1 (enabled - PowerShell Direct first)
- Default value = 0 (disabled - \\admin\$ first)
- Description: Must be applied to the default hive on the Veeam server--not the guest interaction proxy.

### **VssPreparationTimeout**

- Type: REG\_DWORD
- Default value:  $15 * 60 * 1000 = 900000$  (15 minutes in milliseconds)
- Description: Timeout appears as error message "VSSControl: Failed to prepare guest for freeze, wait timeout 900 sec."
- Notes: This is not useful if the error is something else, like "VSSControl: Failed to freeze guest, wait timeout." See also [KB1377](#)

### **VssOtherGuest**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Veeam detects what OS the VM is listed as in the hypervisor (for VMware you can see this in the VMX file). If the VM is set to "Other" (32 or 64 bit), normally we won't try Windows VSS or Linux indexing. Set this to 1 to try both.

### **VssDisableNewMessagingLogic**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Affects job behavior in case of VSS processing failures, depending on guest processing settings. By default a job fails if the "Require successful processing" option is selected and logs a warning if "Try application processing, but ignore failures" is selected. With VssDisableNewMessagingLogic set to 1, the job will instead log a warning for "Require successful processing" and an info message if "Try application processing, but ignore failures" is selected.

### **HyperV VssRestoreTimeout**



- Type: REG\_DWORD
- Default value: 15 \* 60 \* 1000 (sec)
- Description: check case 04926279 or some other in SF search

### **SwitchToPersistentVssSnapshot**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Mostly useless debug option. By default, Veeam will switch to using [persistent snapshots](#) if non-persistent snapshots are supported, and non-persistent snapshot creation has failed.

### **NLBClusterPrimaryIps**

- Type: REG\_MULTI\_SZ
- Description: Define an cluster IP addresses (NLB, DAG and so on) to move them down in the list of RPC connections. If you type "all" Veeam will start connects from the second IP address in the current list.

### **SqlExecTimeout**

- Type: REG\_DWORD
- Default value: 300 (in seconds), it was 60 before 9.0 U1 release.
- Description: Guest SQL execution script timeout, including the log truncation. Needs to be placed on the guest VM in:
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
  - HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication

### **VSSGuestSnapshotTimeout**

- Type: REG\_DWORD
- Default value: 1200 (in seconds)
- Description: Found in job log as "VSSControl: KeepSnapshot started, ttl 1200 sec". Registry setting was added in v9 update 1. Prior to that, this timeout was hard-coded to 600 seconds. This registry key goes to the Veeam Server. The value may be increased if "Snapshot timeout occurred" is seen in VeeamGuestHelper.log

### **UseVSpereAPIVersion**

- Type: REG\_SZ
- Default value: 6.5
- Description: Utilizes VMware web services to accomplish guest processing, make sure the vCenter server is version 5 or above.

- Note: starting from vSphere 6.5 web services are used by default, set 7.0 to use VIX

### **UseSqlNativeClientProvider**

- Type REG\_DWORD
- Default value: 0 (disabled)
- Description: Uses native SQL provider to connect to the instance in guest VM instead of oledb. If the .udl file test fails to connect to the instance using the oledb provider and works with the native provider - then please enable this key. Needs to be placed on the guest VM in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication

### **HttpCommonTimeout**

- Type REG\_DWORD
- Default value: 60
- Description: The key allows setting HTTP timeouts for send/receive operations for vSphere API (WebServices) operations. Need to be set up on VBR server. See also [163886](#)

### **LinuxIndexingUpdateDbTimeoutSec**

- Type REG\_DWORD
- Default value: 3600
- Description: May be used to increase the default timeout for updatedb command, in case one hour is not enough

### **LinuxIndexingPerCommandTimeoutSec**

- Type REG\_DWORD
- Default value: 600
- Description: May be used to increase the default timeout for other (not updatedb) commands related to Linux indexing

### **SQL Log Backup**

### **VeeamLogShipperPriority**

- Type: REG\_SZ
- Default value: BACKGROUND
- Description: Sets process priority for SQL log shipping service and its child processes. Should be set on guest in HKLM\Software\Veeam\Veeam Backup And Replication
- Available values: BACKGROUND, ABOVE\_NORMAL, BELOW\_NORMAL, HIGH, IDLE, NORMAL, REALTIME

## SqlTempLogPath

Should be set in 'HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication' in version 8, in all later releases it is HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication. KEY IS ALWAYS SET ON THE GUEST.

- Type: REG\_SZ
- Default value: **<Drive with most free space>:\Veeam\Backup\SqlLogBackup.** In previous versions (unclear which but likely anything pre9.5U4), it was. %allusersprofile%\Veeam\Backup
- Description: Used to specify alternative location for SQL logs backup task temp folder on guest VM. Also described in the [article](#).

## TempPathDir

Started from version 9.5 u4 you can change the location where SQL logs are temporarily stored on a log shipping server. Should be set on a log shipping server itself in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication, **do not forget a trailing backslash**.

- Type: REG\_SZ
- Default value: C:\Windows\Temp\
- Description: Used to specify alternative location for SQL logs backup task temp folder on a log shipping server. Also described in the [article](#). **The key should be valid for Oracle log backup as well**

## SqlBackupInstanceDatabaseDelimiter

- Type: REG\_SZ
- Default value: ":"

## SqlBackupInstanceDatabasePairsDelimiter

- Type: REG\_SZ
- Default value: ";"

## SqlBackupDatabasesToSkip

- Type: REG\_SZ
- Default value: None
- Description: To exclude SQL databases from SQL logs backup list databases and instances like in example: "sqlserver:msdb;sqlserver:model;:master;sqlserver:". Could be used in following way: sql\_instance\_name:db\_name - skip everything with contains such instance and db name; sql\_instance\_name: - skip all databases from such instance; :db\_name - skip all databases with such name on all instances.

- Mentioned in <https://www.veeam.com/kb2104>

### **ExcludeSQLInstances**

- Type: REG\_MULTI\_SZ
- Default value: None
- Description: To exclude SQL instances from SQL logs backup or truncation. Put every single value on a new string with no punctuation. This is a guest value !

### **SqlBackupLogsAgeDaysToSkipTruncate**

- Type: REG\_DWORD
- Default value: 7
- Description: Log truncate will be skipped for a VM if there are SQL logs of this VM collected last X day by another existed job (!!The same key can be used in oracle jobs).

### **SqlBackupLogsAgeDaysToSkipLogBackup**

- Type: REG\_DWORD
- Default value: 7
- Description: Log backup will be skipped for a VM if there are SQL logs of this VM collected last X day by another existed job (!!The same key can be used in oracle jobs).
- *\*Does not apply to PGSQL redo log backup. The logsAgeDays= value in the PostgreSQL\_Log\_Backup log does not change.*

### **SqlBackupMaxParallelThreads**

- Type: REG\_DWORD
- Default value: 4
- Description: Amount of SQL log backup tasks (one per DB) being run simultaneously. Can be increased to 10 (hardcoded limit).

### **SqlBackupForceTransportMode**

- Type: REG\_DWORD
- Default value: 0
- Description: Transport mode for SQL log backup transfer. 1 - direct transfer without shipping server, 2 - network transfer via shipping server, 3 - VIX transfer via shipping server.

### **SqlBackupProxySlots**

- Type: REG\_DWORD
- Default value: 4

- Description: Defines how many log backups a log shipping proxy will process at a time.

### **RpcSqlLogDownloadViaWebServiceTimeoutSec**

- Type: REG\_DWORD
- Default value: 10800
- Description: (Requires 9.5u2+) Defines the specific RPC timeout for operations to download SQL log files from the guest, 3 hours by default (unlike **RpcRequestTimeoutSec** which affects all the other RPC operations). **Must be set on the VBR server only**

### **DisableSqlLogBackupErrorReports**

- Type: DWORD
- Value: 1 (enabled - if you want to disable error notifications) or 0 (default)
- Description: This key disables Log Backup error notification.

NAS

### **NasEnableSymLinkSupport**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether NAS backup job should follow the symlinks or not. Please note! symlinks of DFS type are read properly by default. WARNING! Create this registry value on the cache repository where master agent starts (check the logs to be sure). **WARNING!!!** In v11 this will be renamed to **NasIncludeSymbolicLinkContent**

### **NasRestoreBrowserMaxListCount**

- Type: REG\_DWORD
- Default value: 1000
- Description: this value defines the maximum number of items we will show during the nas restore in the backup browser

### **NasRestoreWizardMaxTreeCount**

- Type: REG\_DWORD
- Default value: 1000
- Description: this value defines the maximum number of items we will show in the nas restore wizard

### **ObjStgLibLogDetails**

- Type: REG\_DWORD

- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

### **ObjAgentLibLogDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

### **NasBackupLibLogDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

### **NasFilerIncludeHiddenShares**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: by default starting with v11a, we will skip such shares from the in sides of NAS Filer like NetApp — \$share or share\$. If you want to see them in UI and back them up, enable this.

### **NASIncludeSystemShares**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: add 1 to enable. By default starting from v11 we skip System shares from processing when job selects root folder.

### **NASIncludeHiddenShares**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Add 1 to enable. By default starting from v11 we skip hidden shares from processing when job selects root folder.

### **NASFailoverToDirectBackup**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: this value forces NAS backup to backup from filer directly (i.e. with secondary SnapMirror that doesn't allow to create ss)

### **NasBackupForceRepairAllContainers**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: this value forces NAS backup repair to check all metadata. It could fix some issues like 221911. Please remove it after it did all the work otherwise it will happen every job run and it will take ages for big chains.

### **NetAppMaxSnapshotCountSameTime**

- Type: REG\_DWORD
- Default value: 10
- Description: works starting from **v11a**! This value helps to increase the limit that affects how many ss we create during backups on the NAS filer (BUG 336324). Check how many tasks you have from 1 volume = the value for this reg value.

### **NasRepo\_IsCorruptedObjectsVersionsTrackerDisabled**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Check bug 222307 for details

### **NasRepo\_KeepAliveWriteFileStatsLoggingEnabled**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Enables extended logging for keep-alive operations on Datadomain. Check out bug 305708 for details.

## SAN Integration

### **NetAppDetailedLogging**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether NetApp API responses and requests are logged

### **NimbleAPILogDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether Nimble API responses and requests are logged

### **LogPublicPluginMethods**

- Type: REG\_DWORD

- Default value: 0 (disabled)
- Description: define whether PublicPlugin extended logging is enabled. To get complete logging of Public plugin methods the next key "SanPublicPluginShowApiDetails" should be created too.

### **SanPublicPluginShowApiDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: this allows to enable log level 6 output for the storage plugins without the need to enable it for the whole service

### **SanIBMShowApiDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether IBM API responses and requests are logged

### **LogWsApiFullDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether HPE 3PAR Web Services responses and requests are logged

### **VNXAPILogDetails**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether VNXe RESTfull API responses and requests are logged

### **CiscoHXLogRestAPI**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether Cisco HyperFlex API responses and requests are logged

### **VNXeUseRESTAPI**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define if we should work over RESTFull API or CLI

### **IsilonRestApiLogDetails**



- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: this enables additional logging for Isilon NAS Filer Storage Integration (File Change Tracking)

### **IbmHyperSwapUseSecondary**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: controls whether Veeam will use volume from secondary site to backup from

### **IbmFlashCopyCleanrateRate**

- Type: REG\_DWORD
- Default value: 0
- Description: define -cleanrate option for the storage snapshots created on IBM

### **IbmFlashCopyWaitTimeout**

- Type: REG\_DWORD
- Default value: 1 (in minutes)
- Description: how much time we will wait during the backup job (BoSS) before giving up and letting svc.veeambackup to do it later

### **IbmFlashCopyProductionWaitTimeout**

- Type: REG\_DWORD
- Default value: 5 (in minutes)
- Description: how much time we will wait during the backup job (SnapshotOnly) before giving up and letting svc.veeambackup to do it later

### **IbmFlashCopyMaxWaitTimeout**

- Type: REG\_DWORD
- Default value: 30 (in minutes)
- Description: how much time we will wait during any veeam console action or during restores before giving up and letting svc.veeambackup to do it later

### **VmfsLogEnabled**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: define whether VMFS library output will be logged during VMFS rescan

## **EMCUseUnityApi**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: define whether to use new dynamic attach logic for Unity or not (0 = old 'default attach')

## **NetApp7mUseFlexCloneForTargetSnapVaultRestore**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: use flexclone for Windows File level restore from NetApp 7-mode SnapVault (NFS access)

## **SkipCertificateCheck**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: skip certificate check for all the storages that are working through REST + vC certificate checks PLEASE USE STRICTLY WHEN THERE'S NO OTHER OPTION (literally), our software must work and not around

## **IsNeedForceAddingAdminPathPrefix**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: add ./admin to the path when we mount new datastore during SSLR, used when SVM root vol protection is configured

## **NetAppClustGetRenamedTargetSnapshotSleepSec**

- Type: REG\_DWORD
- Default value: 5 (seconds)
- Description: how many seconds to wait before next try when we rename VeeamSourceSnapshot into VeeamSnapVault and we cannot find ss (Bug 181447)

## **NetAppClustGetRenamedTargetSnapshotRetryCount**

- Type: REG\_DWORD
- Default value: 3
- Description: how many tries to do when we rename VeeamSourceSnapshot into VeeamSnapVault and we cannot find ss (Bug 181447)

## **NetAppMaxIteratorItems**

- Type: REG\_DWORD
- Default value: 10

- Description: this limits <num-records> field in our zAPI calls to NetApp, i.e. how many entries we want to receive in the answer

### **NetAppSnapRestoreTimeoutMin**

- Type: REG\_DWORD
- Default value: 60 (minutes)
- Description: timeout to complete SnapRestore operation

### **SanMaxConcurrentCreatingVmSnapshotsPerEsx**

- Type: REG\_DWORD
- Default value: 10
- Description: defines amount of snapshot tasks initiated on VMs which belong to the same ESXi host

### **SanMaxConcurrentCreatingVmSnapshotsPerVc**

- Type: REG\_DWORD
- Default value: 20
- Description: defines amount of snapshot tasks initiated on VMs which belong to the same vcenter

### **SanBackupPrepareAgentCount**

- Type: REG\_DWORD
- Default value: 8
- Description: defines amount of agent started to collect CTK and map disk region information

### **MaxConcurrentDeletingSnapshotsForCluster**

- Type: REG\_DWORD
- Default value: 4
- Description: defines a number of VMware snapshots deleted simultaneously per cluster

### **SanBackupIscsiThroughFcpPriority**

- Type: REG\_DWORD
- Default value: 1
- Description: access FC mapped LUNs over iSCSI protocol

### **SanBackupFcpThroughIscsiPriority**

- Type: REG\_DWORD
- Default value: 0

- Description: access iSCSI mapped LUNs over FC protocol

### **SanBackupWaitVMSnapshotDeletion**

- Type: REG\_DWORD
- Default value: 1
- Description: define whether Veeam will be waiting for VMware snapshot deletion prior to disk processing

### **SanRescan\_Periodically\_Days**

- Type: REG\_DWORD
- Default value: 7 (days)
- Description: defines how frequently we should initiate periodic full rescan after Veeam Backup service is restarted

### **SanRescanSnapshotsParseFS**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: storage integration rescan has 2 stages: vC rescan and VMFS rescan, this registry value controls the latter. It is perfectly fine to use in production unless customer has secondary storage. We won't show any vms inside ss on the secondary cause they are not connected to vSphere thus we need to parse VMFS and look for .vmx files to be able to show the vms under each ss in UI.

### **SanOperationTimeout**

- Type: REG\_DWORD
- Default value: 600 (in seconds)
- Description: timeout for any API call we send to the storage

### **SanMonitorDisabled**

- Type: REG\_DWORD
- Default value: 0 (disabling disabled)
- Description: disable SanMonitor

### **SanMonitorTimeout**

- Type: REG\_DWORD
- Default value: 600 (seconds)
- Description: defines how frequently we should update SAN infrastructure and run incremental rescan for updated objects

### **SanMonitorFailedHostSkipRescanCount**

- Type: REG\_DWORD
- Default value: 10 (times)
- Description: defines amount of rescan operations the host won't be touched due to unavailability

### **SanSnapshotTransferWaitTimeoutMin**

- Type: REG\_DWORD
- Default value: 60\*24 (minutes)
- Description: timeout to wait SnapVault/SnapMirror snapshot transfer completion

### **HP3PARLunExportRetryCount**

- Type: REG\_DWORD
- Default value: 10
- Description: number of attempts to choose LUN id to export snapshot on proxy

### **SanVolumeCopyLockTimeoutMin**

- Type: REG\_DWORD
- Default value: 180 (minutes)
- Description: timeout for block level access for Unity/VNXe, we have some additional logic in there cause of limitations of these storages

### **SanRescanSnapshotsCountInGroup**

- Type: REG\_DWORD
- Default value: 8
- Description: how many storage snapshots we process simultaneously from 1 volume during the rescan

### **IscsiCommandRetryCount**

- Type: REG\_DWORD
- Default value: 3
- Description: how many retries we're planning to do when working with storage snapshots over iSCSI

### **IscsiDataLogEnabled**

- Type: REG\_DWORD
- Default value: 0
- Description: log additional messages when working with storage snapshots over iSCSI

### **SanVolumesProxyExportLockTimeout**

- Type: REG\_DWORD
- Default value: 600(seconds)
- Description: Seen in task log as Error: "Failed to wait mutex SanVolumesMountProxy : timeout 600 sec"

### **Hp3PARPeerPersistentUseSecondary**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: controls whether Veeam will use volume from secondary site to backup from

### **Hp3PARTempVirtualCopyMaxNumber**

- Type: REG\_DWORD
- Default value: 10
- Description: controls how many concurrent storage snapshots for the same volume can be created (for 3PAR) //will be changed in u4

### **NimbleMaxTempSnapshotCount**

- Type: REG\_DWORD
- Default value: 10
- Description: controls how many concurrent storage snapshots for the same volume can be created (for Nimble) //will be changed in u4

### **DirectNFSCheckDatastoresFromProxy**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: Controls whether Veeam should rescan all discovered NFS datastores automatically every 4 hours. Set to 0 (disable) if Direct NFS is not used, and customer uses Automatic selection or Direct Storage Access modes on his proxies.

### **NetAppOrderedIPList**

- Type: REG\_SZ
- Description: Normally if you want to control what network is used for data transfer between the NetApp and the proxy, use Preferred Networks in the console. However, you can override preferred networks with this registry setting. Specify one or more IP addresses of NetApp network adapters, separated by semicolons; addresses will be tried from left to right.

## **ShowNimbleCloneVolumes**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: By default, cloned Nimble Volumes aren't shown in Veeam and can't be interacted with. By enabling this setting, cloned volumes can be seen and utilized for any storage snapshots or other backup processes.

## **UseStorageSnapshotsInVeeamZip**

- Type: REG\_DWORD
- Default value: 1 (0 to disable)
- Available in: v10 and later
- Description: Allows leveraging of Storage Snapshots for VeeamZip jobs

## **vPower NFS**

### **NFSDefaultRootPath**

- Type: REG\_SZ
- Default value: C:\VeeamNFS
- Description: Back in the days when you couldn't specify a vPower server in the repository settings, you had to change this setting and manually unmount the old datastore from the ESX host.

### **RootFolder**

- Type: REG\_SZ
- Key: HKLM\SOFTWARE\Wow6432Node\Veeam\Veeam NFS
- Default value: C:\ProgramData\Veeam\Backup\NFSDatastore
- Description: Cache location specified in repository settings. See also [KB1094](#).

### **IrMountLeaseTimeOut**

- Type: REG\_DWORD
- Default value: 30 (minutes)
- Note: Usually when increasing this you will also need to increase remotingTimeout

### **vPowerNFSDisableIPAuth**

- Type: REG\_DWORD (0 False, 1 True)
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\WOW6432Node\Veeam\Veeam NFS\ (Should be set on the Repository where vPowerNFS runs)
- Default value: 0
- Description: Veeam B&R 9.5 Update 4 brought a new security model to our vPower NFS datastore. Starting from U4 this datastore validates the permissions

of the hosts trying to connect to it. By default, access is allowed for the host which provisioned this datastore. The registry value reverts the U4 behavior back.

### **allowedHostAddr**

- Type: REG\_SZ
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\WOW6432Node\Veeam\Veeam NFS\Connections\{manual} (Should be set on the Repository where vPowerNFS runs)
- Default value: Null
- Description: Veeam B&R 11a further improved vPower NFS security model. Refer to an article for a detailed description: <https://xwiki.support2.veeam.local/bin/view/Main/Internal%20Technical%20Docs/Veeam%20Backup%20and%20Replication/General/Controlling-access-to-vPowerNFS-in-v11a/>

Agent

**These values should be set on each proxy or repository (where VeeamAgent.exe is running) unless otherwise noted.**

### **MaxUploadStopTimeoutMs**

- Type: REG\_DWORD
- Default value: 1800000 (30 minutes)
- Description: defines a timeout for thread finalization by target agent

### **DataMoverLocalFastPath**

- Type: REG\_DWORD
- Default value: 2
- Description: Changes how connections between two VeeamAgents work when both agents are on the same server.
  - o 0 - Uses normal network connection. Usually the slowest option. This was the default prior to v8 update 2.
  - o 1 - leverages [tcp loopback fast path](#) on Win2k12 and above. (See also the key **IsLoopbackFastPathEnabled**)
  - o 2 - uses our implementation of shared memory, which works on all versions of Windows

### **IsLoopbackFastPathEnabled**

- Type: REG\_DWORD
- Default value: 0
- Description: DataMoverLocalFastPath = 1 is not working in v11a any more. Use this key if you want to enable [tcp loopback fast path](#).



- o 0 - disabled
- o 1 - enabled

### **ConnectByIPsTimeoutSec**

- Type: REG\_DWORD
- Default value: 300 (seconds)
- Should be set on the management server.
- Description: for example <https://www.veeam.com/kb1976>

### **AgentMaxReconnectRetries**

- Type: REG\_DWORD
- Default value: 30
- Should be set on the management server.
- Description: for example <https://www.veeam.com/kb1781>

### **AgentReconnectRetryIntervalSec**

- Type: REG\_DWORD
- Default value: 30
- Description: unclear, but in SF search you can find a lot of examples

### **AgentStartTimeoutSec**

- Type: REG\_DWORD
- Default value: 300
- Should be set on the management server. It could be used to increase transport agents' start timeout in **version 10** and newer. See bug [193600](#)

### **VddkConfigPath**

- Type: REG\_SZ
- Default value: <empty>
- Description: Use this to enable [Extended VDDK logging](#).

### **VddkWaitTimeout**

- Type: REG\_DWORD
- Default value: 300 (seconds) - 5 minutes
- Description: This specifies a timeout for the function WaitAllDisksClosed, it ensures that we don't hang in vddk while trying to close disks and disconnect from VC.

### **VddkHotaddSyncTimeoutMs**

- Type: REG\_DWORD

- Default value: 1800000 (in ms, which is 30 minutes)
- Description: The key should be created on proxy.

Even though it says hotadd, it applies to all modes.

There is a global mutex that we create in order to synchronize multiple VeeamAgent processes (not threads!) on the proxy - so they won't be executing VixDiskLibOpen VDDK API call simultaneously on this proxy.

Usually VixDiskLibOpen should execute within seconds - but sometimes, because of unknown issues it takes minutes for vddk to open the disk.

This registry key specifies how much time VeeamAgent is going to wait for mutex. Appears in logs as "[Timed out to lock hot-add mutex]".

### **HotAddIgnoreLockedVolumes**

- Type: REG\_DWORD
- Default value: 0
- Description: Under some circumstances v6 VixDiskLib may crash in hotadd mode with something like "Panic: Win32 invalid\_parameter error". Task fails with error message "channelerror: connection reset".

Disable automount on proxy and add this value. Set it to 1.

### **VddkPreReadBufferSize**

- Type: REG\_DWORD
- Default value: 4 \* 1024 \* 1024 (bytes)
- Description: If backup is slow with bottleneck:source, especially with Direct SAN, try decreasing this, or setting it to 0.

### **NfsAsyncSessionEnabled**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: defines whether or not our new NFS client logic should be used for backup. Must be created on each backup proxy!

### **NfsAsyncWriteEnabled**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: defines whether or not our new NFS client logic should be used for the restore. Must be created on each backup proxy!

### **NFSClientThreadsNum**

- Type: REG\_DWORD

- Default value: 1
- Description: defines how many connections per disk to the storage should be used, can be slightly increased. Must be created on each backup proxy!

### **NfsRpcSlotsCount**

- Type: REG\_DWORD
- Default value: 65536
- Description: defines how many requests (basically the size of the queue) we will send simultaneously to the NFS server/share during backup. Must be created on each backup proxy! Try to use 128 for NetApp.

### **NfsAsyncRpcRecvThreadsNum**

- Type: REG\_DWORD
- Default value: Min(core,8)
- Description: defines how many threads should be used, directly affects the cpu load on the proxies. By default we will use cores=threads number for everything less than 8 cores. If server has more than 8 cores, we will use 8. Must be created on each backup proxy!

### **NfsAsyncPrereadBlockSizeMb**

- Type: REG\_DWORD
- Default value: 2
- Description: defines the depth of the queue, we request this much data initially and then it becomes smaller chunks. Can be slightly increased if storage and proxies are ready for the load. Must be created on each backup proxy!

### **NfsAsyncPrereadQueueDepthChunks**

- Type: REG\_DWORD
- Default value: 64
- Description: defines the depth of the queue, to be precise how many chunks of data will be handled in the context of 1 connection. Must be created on each backup proxy!

### **NfsConnectRetryCount**

- Type: REG\_DWORD
- Default value: 10 (in update 3a)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam NFS
- Description: controls the number of NFS connection attempts.

In version 9.5 update 3a the default number of NFS connection attempts was increased from 1 to 10.

This may potentially affect the job with storage integration via NFS in case customer has a lot of LIF-s (the job will try connecting to each of them 10 times per each which may degrade the performance). So sometimes you may want to change this behavior back to 1 connection attempt setting this value to 1.

The agent is 32 bit so you have to create this value on proxy including the hive Wow6432Node.

### **NetUseShareAccess**

- Type: REG\_DWORD
- Default value: 0
- Description: Add this on the proxy/repository. Agent will use NET USE to write to a UNC path. LOG: NET USE SHARE ACCESS : Enabled

### **AgentReadOnlyCache**

- Type: REG\_DWORD
- Default value: 2
- Description: 8.0U2 introduced caching which increases RAM requirements for the target agent.  
Disable = 0, Enable = 1, DisableOnlyForIncrementalWithDedupDisabled = 2, Always = 3  
Note: If this is enabled, Backup Copy job target agent will hold a lock on target files even if the session is idle.

### **HangedAgentKillTimeout**

- Key: HKLM\SOFTWARE\Veeam\Veeam Backup Transport
- Type: REG\_DWORD
- Default value: uncertain, maybe 3600 (seconds)
- Description: The Data Mover service tries to watch for agents that aren't doing anything and stops them; sometimes it gets it wrong. In the logs you will see "Agent '{GUID}' will be terminated due to reason: some I/O operation has hanged" and/or "WARN|AGENT [{GUID}] HAS HANGED UNEXPECTEDLY AND WAS TERMINATED." This may sometimes appear to the end-user as "Application is Shutting Down." Restart the Veeam Data Mover service to apply this registry change. Surprisingly, the value is not created in wow6432node, even though the transport service is 32-bit. When applied correctly, you will see "HANGED AGENT KILL TIMEOUT, SEC:" in Svc.VeeamTransport.log. Recommended value for a workaround is 28800 seconds (8 hours).

### **OrphanedAgentKillTimeout**

- Key: HKLM\SOFTWARE\Veeam\Veeam Backup Transport
- Type: REG\_DWORD
- Default value: uncertain, maybe 1200 (seconds)
- Description: Use case unknown. In the logs you will see "Agent '{GUID}' will be terminated due to reason: agent is orphaned." Restart the Veeam Data Mover service to apply this registry change. Surprisingly, the value is not created in wow6432node, even though the transport service is 32-bit. When applied correctly, you will see "ORPHANED AGENT KILL TIMEOUT, SEC:" in Svc.VeeamTransport.log.

### **IscsiMountFsCheckRetriesCount**

- Type: REG\_DWORD
- Default: 6
- Description: iSCSI mount operations are now retried automatically to work around occasional "The device is not ready" errors which happen when mount operation takes too long. By default, the mount is retried 6 times every 10 seconds.

### **VddkOpTimeoutSec**

- Type: REG\_DWORD
- Default: unknown
- Suggested value: 3600 (decimal, in seconds)
- Description: Implements a timeout to kill the agent when VixDiskLib\_Read() or Write() operations are hung.

### **EnableFailoverToLegacyHotadd**

- Type: REG\_DWORD
- Default: 0
- Description: enables native HotAdd read mode instead of Windows API read. To enable set the value to 1.

### **Backup Copy Job**

#### **SkipJobSourceRepositoryCheck**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: value controls possibility to use source backup repository as target repository for backup copy job (note: Not valid for Agent Backup Copy Jobs and Backup Copy Simple Mode)

### **BackupCopyJobReCheck**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: value 1 (enabled) forces Health Check after each run

### **BackupSyncMaxRetriesPerOib**

- Type: REG\_DWORD
- Default value: 5
- Maximum retries when network connection breaks between the agents (e.g. due to unreliable WAN)

### **BackupCopyDisableParallelProcessing**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (Parallel processing is enabled)
- Description: Backup Copy parallel processing was added in v9. Set this to 0 to switch back to sequential processing.

### **BackupCopyLookForward**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: If you do not want backup copy jobs to transfer the latest point when it restarts, set this to 1 to only look for restore points newer than the start time.

### **BackupCopyMirrorAll**

- Type: REG\_MULTI\_SZ
- Possible values: BCSM job names, new line for each BCSM job you want it to apply to.
- Default value: None
- Description: Will cause initial run of SimpleBackup Copies (mirroring mode) to move all points from source job, not just most recent. The Simple Copy job will queue each point in a chain one at a time, it is not done in bulk. Expect RPO warnings/failures for points made > the RPO Monitor settings, this is normal and expected for this type of Copy. Note: if source job has GFS points, all points will be copied, but will be created as increments: the target backup chain will be a simple one with 1 vbk file, but the amount of restore points will be the same as the source has.

Cloud Director

### **VcdBackupQuantSizeMb**

- Type: REG\_DWORD
- Default value: 512
- Description: added in Veeam 9.5 update 4. Similar to CloudConnectQuantSize Mb registry key, used in the vCD backup jobs created from a vCloud self-service portal or from a vSphere self-service portal. Every 10 seconds target agent gets a quota of 512 MB (default value), once this quota is exceeded, target agent throws message Storage size quota exceeded. Waiting for quota increase. This key allows to increase quota size. Use this key if processing per task reaches the limit of 51,2 MB/s and usage graph on a repository is showing spikes. **Due to the bug in 9.5 update 4/4a/4b the value of this key above 2047 might lead to the unexpected consequences, so do not set it higher than 2047.**

### VcdVappVmQueryParallelThreadsCount

- Type: REG\_DWORD
- Default value: 4
- Description: added in Veeam 9.5 update 4b, starting with this version VBR queries vApps information in vCloud backup jobs using an amount of parallel threads configured using this key, by default VBR uses 4 threads. Check this [bug](#) also.

### VcdSkipVappFileSessionsScheduling

- Type: REG\_DWORD
- Default value: 0
- Description: added in VBR 10, related to [bug 185225](#). Basically, it's the solution from the privatefix - set to 1 when you need to disable StoreOnce file sessions scheduler for vApps. As a result VBR will always assign file session resources for vApp containers.

### CloudConnectQuotaAllocationMode

- Type: DWORD
- Default value: 0 (v10-v11), 2 (v12)
- Description: **v10** or newer. Possible values 0, 1, 2. This VCC key also affects the vCD backup jobs created from a vCloud self-service portal. This key changes the quota allocation mechanism for such jobs. By default, target agent gets a quota of 512 MB (default value) every 10 seconds, once this quota is exceeded, target agent throws message Storage size quota exceeded. Waiting for quota increase. It becomes a bottleneck if data is transferred faster. The key allows VeeamAgent to request the quota necessary for work:
  - o 0 - **Default value (pre-v12)** - every 10 seconds quota is increased to 512 MB.
  - o 1 - VeeamAgent.exe itself asks for the required quota.

- o 2 - **Default value (starting with v12)** - Hybrid mode, VeeamAgent asks for the required quota size of VcdBackupQuantSizeMb - **preferred value**

### **VcdReplicaEnableStaticIpValidation**

- Type: REG\_DWORD
- Default value: 1
- Description: **v12** only, enabled by default. Set to 0 to disable warnings in Cloud Director replication vApp tasks related to VMs with Static - Manual or Static - Pool ip allocation modes being disconnected from network on target side. Doesn't affect warnings in VM tasks. See also this [article](#).

### **VcdReplicaEnableSummaryCompression**

- Type: REG\_DWORD
- Default value: 0
- Description: **v12.1** only, not enabled by default. Set to 1 to enable compression of VCD data and Network Mapping to VCD Snap replica. For details check <https://wiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/12/4-Fixed-by-12-1-0-2131-GA/Bug-58691><https://wiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/12/4-Fixed-by-12-1-0-2131-GA/Bug-58691>

## Hyper-V

### **HyperVIgnoreNonSnapshottableDisks**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: Hyper-V 2016 VMs with non-snapshottable disk such as disks connected via in-guest iSCSI initiator can now be processed by backup and replication jobs, with unsupported disks skipped and their content not included in a backup or replica. If you'd rather prefer the job to fail on such VMs (legacy behavior), create this value on the backup server and set it to 0.
- Version: 9.5 Update 3

### **EnableHvParallelTaskBuilding**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: Applies if you notice jobs rarely stuck forever on "Task progress 0 %, Job progress 0%" in Hyper-V. Set it to 0 to disable parallel task allocation. Once the tasks are created, the jobs run in parallel mode normally.

### **HvTaskBuilderThreadCount**



- Type: REG\_DWORD
- Default value: 0 (no limit)
- Description: used together with EnableHvParallelTaskBuilding; with that key you can modify how many parallel threads are used to build tasklist. useful when default value generates too many requests and overloads the infra

### **HyperVvmMemoryLimitDecrementInPercent**

- Type: REG\_DWORD
- Default value: 30
- Description: When there is not enough RAM on target host, Replica VM memory gets adjusted to:  $\text{res} = (100\% - \text{decrement}) * \text{totalRAM}$ . Where totalRAM - total host memory. decrement - percent specified by registry value. During fail back to original location we set memory to the original value.

### **CutHvVmSecuritySettings**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: See [KB2021](#)

### **EnableHvVdk**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: There are two different Windows FLR engines available for Hyper-V. By default, Veeam VDK driver is used. When set to 0, native Hyper-V mount for VHD(X) is used.

### **HvDelayBeforeSnapshotImportCompleteSec**

- Type: REG\_DWORD
- Default value: 0 (seconds)
- Description: See [KB1844](#)

### **HvLinuxFLRTempFolder**

- Type: REG\_SZ
- Default value: C:\VeeamFLR

### **HvSnapshotLifeTimeHour**

- Type: REG\_DWORD
- Default value: 72 (hours)
- Don't set it higher than 240 unless necessary. According to QA the maximum value is 596.

### **TimeoutForVmShutdownSec**

- Type: REG\_DWORD
- Default value: 120 (seconds)
- Description: defines timeout to automatically stop the shut down a VM task if no event from Hyper-V received

### **MaxSmb3SnapshotsNum**

- Type: REG\_DWORD
- Default value: 4
- Description: defines amount of concurrent snapshots created on SMB 3.0 share in Hyper-V

### **SmbMaxSnapshotsNum**

- Type: REG\_DWORD
- Default value: 4
- Description: Defines the default value of concurrent snapshots for NEW SMB volumes registered by Veeam. Can be used to set Max snapshots for non-windows SMB3 shares. If the shares are already registered in Veeam B&R, the value won't change anything for them, so you need to update the database value "max\_snapshots\_count" manually (for shares, the table is [dbo].[SmbFileShares]).

### **HvSleepAfterGuestInstalledSec**

- Type: REG\_DWORD
- Default value: 0 (in seconds).
- See description in Bug 38997

### **HyperVRemoteWmiToggleLogic2012**

- Type: REG\_DWORD
- Default value: 0 (false)
- If enabled, WMI requests will be proxied to the host to be run locally. Appears to have bugs, not recommended.

### **HyperVRemoteWmiToggleLogic2015**

- Type: REG\_DWORD
- Default value: 0 (false)
- If enabled, WMI requests will be proxied to the host to be run locally. Appears to have bugs, not recommended. Workaround for bug 91537, needs to be removed after upgrade to version 9.5 Update 1.

### **HvWmiReconnectsCount**

- Type: REG\_DWORD
- Default value: 0 (false)
- Defines the amount of retries for failed WMI calls

### **HyperVDefaultWMITimeoutSec**

- Type: REG\_DWORD
- Default value: 3600 (decimal, seconds)
- Defines the amount of time for which Veeam B&R will wait confirmation from a Hyper-V host after requesting an operation via WMI

### **MaxVmCountOnHvHardSnapshot**

- Type: REG\_DWORD
- Default value: 8
- Description: For reliability reasons caused by Hyper-V backup architecture, when a hardware VSS provider is used the maximum amount of VMs per snapshot is limited to eight by default. This value can be increased on fast storage, or decreased for troubleshooting purposes.

### **MaxVmCountOnHvSoftSnapshot**

- Type: REG\_DWORD
- Default value: 4
- Description: For reliability reasons caused by Hyper-V backup architecture, when a software VSS provider is used the maximum amount of VMs per snapshot is limited to four by default. This value can be increased on fast storage, or decreased for troubleshooting purposes.

### **MaxHvConcurrentDeletingCheckpointsForHost**

- Type: REG\_DWORD
- Default value: 4
- Description: The max number of checkpoints Veeam will attempt to remove on Hyper-V.

### **HvVssPowerShellDirectPriorityOverNetwork**

- Type: REG\_DWORD
- Default value: 0
- Description: Default (0) lets Network mode have priority. Set this to 1 for PowerShell Direct to gain priority.

### **HyperVReferencePointCleanup**

- Type: REG\_DWORD

- Default value: 0 (in 9.5)
- Description: Introduced in 9.5 update 4, used to activate "DestroyReferencePoint" method after Backup or Replication job in Hyper-V 2016. If the key is set to 1, during each job run Veeam will remove all the reference points from the VMs being processed. Please, keep in mind that not only the reference points created by Veeam will be removed, the reference points created for instance by a native HV replication will be deleted as well. Also, reference points removal won't affect the size of VMCX files, if they are large already they won't be shrunk. See also [bug 149319](#)

### **Starting from V10 the key has 3 values:**

- 0 - don't clean up reference points
- 1 - clean up only Veeam-made reference points **(default)**
- 2 - clean up all reference points

### **HvUseFullSnapshotType**

- Type: REG\_DWORD
- Default value: 1
- Description: Introduced in v10. By default, for Hyper-V 2016/2019 if CBT is disabled in the job settings, Veeam creates checkpoints with type=2 (Full Snapshot). If CBT is enabled, Veeam creates checkpoints with type=32768 (Vendor Specific, default recovery checkpoint type in 9.5). If you set this key to **0**, Veeam will always create checkpoints with type=32768 (which was our standard behavior in 9.5).

## VMware

### **VmwareForcedHierarchyUpdatePeriod**

- Type: REG\_DWORD
- Default value:
- Description: 9.5 Update 1: Added experimental Broker Service behavior when it does not try to keep the vSphere infrastructure cache up-to-date continuously. Instead, it will query vSphere infrastructure hierarchy changes only when hierarchy data is requested, but no less often than the specified timeout. Using this mode significantly reduces vCenter Server traffic in large environments while only slightly delaying tasks requiring vSphere hierarchy data. To enable this mode, create VmwareForcedHierarchyUpdatePeriod (DWORD) registry value under HKLM\SOFTWARE\Veeam\Veeam Backup and Replication key on the backup server with the value in seconds (900 is the recommended value).

### **UseTLSv12ForNfc**

- Type: REG\_DWORD
- Default value:

- Description: By default, Veeam Agents connect to ESX hosts for NFC sessions over SSL 3.0 (for compatibility with earlier versions of ESX hosts). If an error occurs, Veeam Backup & Replication automatically fails over to TLS 1.2. To change the default behavior, use this registry value.

### **ResourceScanPeriodForTriesSec**

- Type: REG\_DWORD
- Default value: 600 (seconds)
- Description: Maximum timeout for selecting proxy. Timeout is increased in 1.5 times, so by default error will happen in 15 minutes not 10

### **ViSoapJITCompilerGuardTimeout**

- Type: REG\_DWORD
- Default value: 300 (seconds)
- Description: controls the mutex timeout on expanding vsphere infrastructure. Use with large/busy environments when seeing "Failed to wait mutex famVim Service: timeout 300 sec exceeded". Removed from the code since v9.

### **VDLOpenTimeoutSec**

- Type: REG\_DWORD
- Default value: 1800 (seconds)
- Description: relates to BUG 31168 (VMWare (SR #14469352404)) Forces the task failure if VixDiskLib\_Open lasts longer than the specified value.

This should be created on proxy - default value 30 minutes. It specifies a timeout for VixDisklibOpen, when VeeamAgent hangs in VixDisklibOpen. This timeout allows us to get out from hanged vmware code, so we fail the task/job and we get to processing of the next VM. See also url:<http://viqa.support2.veeam.local/questions/2414/v9-san-mode-failure>[viqa.support2.veeam.local/questions/2414/v9-san-mode-failures](http://viqa.support2.veeam.local/questions/2414/v9-san-mode-failures)

### **VMware65CbtSnapshotCheckEnabled**

- Type: REG\_DWORD
- Default value: 1
- Description: set value to 0 to disable the code that checks whether the backed up VM has any snapshots (vSphere 6.5 only). For details see [bug 215131](#).

### **DisableAutoSnapshotConsolidation**

- Type: REG\_DWORD
- Default value: 0
- Value: 0 = enables, 1 = disables
- Description: key to disable Snapshot Hunter

## **BackupVcEnabled**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1
- Description: By default, the vCenter database is excluded from VSS processing and gets into the Exclusion list (<https://www.veeam.com/kb2110>). You may remove the vCenter database from the Exclusion list, but it will be added back automatically on the next job run. In order to prevent our guest agent from re-updating this table every time use registry key.

## **ViHostConcurrentNfcConnections**

- Type: REG\_DWORD
- Default value: 28
- Description: Limit on number of concurrent NFC (NBD) connections per ESXi host. Default value was 7 in 9.0 and earlier. See [Best Practices](#) for more info.

## **VmReloadDelay**

- Type: REG\_DWORD
- Default value: 15000 (milliseconds)
- Description: defines delay between some operation against VMware VM and reload task against it

## **CreateSnapshotTimeout**

- Type: REG\_DWORD
- Default value: 30\*60\*1000 // 30 minutes (milliseconds)
- Description: defines timeout to automatically stop the create snapshot task if no event from VMware received

## **RemoveSnapshotTimeout**

- Type: REG\_DWORD
- Default value: 60\*60\*1000 // 1 hour (milliseconds)
- Description: defines timeout to automatically stop the remove snapshot task if no event from VMware received

## **ShutdownTimeout**

- Type: REG\_DWORD
- Default value: 15\*60\*1000 // 15 minutes (milliseconds)
- Description: defines timeout to automatically stop the shut down a VM task if no event from VMware received

## **MaxViVMPowerOnOffOperationTimeoutMin**

- Type: REG\_DWORD
- Default value: 60\*60\*1000 // 60 minutes (milliseconds)
- Description: defines timeout to automatically stop the power on or power off a VM task if no event from VMware received

### **MaxSnapshotsPerDatastore**

- Type: REG\_DWORD
- Default value: 4
- Description: specifies the number of storage snapshots that can be simultaneously created on same datastore

### **HotaddTimeoutAfterDetachSec**

- Type: REG\_DWORD
- Default value: 0
- Description: Implemented since v9.5u3. Controls the delay (not the timeout) between hot-add detach and remove VI Snapshot (BugID: 118005)

### **EnableSameHostDirectNFSSMode**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- 1 - Preferred Same Host. If a Direct NFS proxy exists on same host, Veeam waits for a free task slot there. If a proxy on same host does not exist, Veeam uses another Direct NFS proxy (on another host or physical server) or falls back to virtual appliance (hot-add) and finally to network (NBD) mode. This mode is not recommended with Nutanix. In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. But if it becomes unreachable for some reason, we will use other Hot-Add proxy B.
- 2 - Same Host Direct NFS mode. Recommended for Nutanix. If there is no Direct NFS proxy on the same host as the VM, it falls back to network mode (NBD). In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. If it becomes unreachable for some reason, we won't use other Hot-Add proxy B. Instead, we will switch to NBD mode.
- Note: this value must be created on veeam box, also be sure that you apply this together with reading Nutanix best practice guide (still valid for v10) [https://www.veeam.com/nutanix-veeam-backup-replication-best-practices\\_wpp.pdf](https://www.veeam.com/nutanix-veeam-backup-replication-best-practices_wpp.pdf)

### **EnableSameHostHotaddMode**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- 1 - In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. But if it becomes unreachable for some reason, we will use other Hot-Add proxy B.

- 2 - In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. If it becomes unreachable for some reason, we won't use other Hot-Add proxy B. Instead, we will switch to NBD mode.
- Note: has no effect when VSAN datastores are used.

### **ResetCBTOnDiskResize**

- Type: REG\_DWORD
- Default value: 1
- Description: Veeam resets CBT for any resized disk on VMware to prevent CBT corruption bug. If you have patched ESXi hosts, this behaviour may be no longer desirable.

### **EagerZeroedDiskRestore**

- Type: REG\_DWORD
- Default value: 1 (enabled)
- Description: In 8.0, the Direct SAN restore process creates lazy zeroed disks. In 9.0, Direct SAN restore instead creates eager zeroed disks, since this was found to improve performance in most cases. To create lazy zeroed disks in full VM restore in version 9.0, set this value to 0. In 9.5, it's expected that you will be able to choose in the GUI.

### **StrictDatastoreScope**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Normally if you specify a datastore as the object added to a job, VMs that have an ISO in that datastore will be included in the job. If this is set to 1, ISOs will be ignored.

### **VMwareDisableAsyncIO**

- Type: REG\_DWORD
- Default value: 0
- Description: 9.5 update 4 registry key. The key should be applied on the VBR server. Starting from vSphere 6.7 Veeam started using Async IO in NBD/NBDSSL transport mode, which can cause different issues, for instance during NTFS partition bitmap read when dirty blocks exclusion is enabled. Set to 1 to disable AsyncIO for all vSphere version not only 6.7. Does not require services restart.

### **VddkAsyncNbdBufferLimit**

- Type: REG\_DWORD
- Default value: 0



- Description: The key should be applied on the proxy server. Sets the I/O buffer size in Async NBD mode. When VMwareDisableAsyncIO=1 isn't feasible in case of an NBD\_ERR\_INSUFFICIENT\_RESOURCES error, try setting this to 1048576. Does not require services restart.

### **VMwareVmReconfigurationTimeoutSeconds**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: **This key is added in v11a**, not applicable in earlier versions! Adds a timeout for tasks stuck on ReconfigVM step. Refer to [bug 336326](#) for details.

File level restore

### **FLRMountFolder**

- Type: REG\_SZ
- Default value: C:\VeeamFLR
- Description: defines the location for a file level restore

### **ApplianceTmpfsMaxSizeInMb**

- Type: REG\_DWORD
- Default value: 0
- Description: Since VBR 11 only. The key sets size of /tmp in FLR Helper Appliance. The key should be applied on the backup server, the value is in megabytes.

### **VdkMaxDisksNum**

- Type: REG\_DWORD
- Default value: 20
- Description: See [KB1772](#)

### **FLROnDriveLetter**

- Type: REG\_DWORD
- Default value: 2
- Description: Defines where FLR Mounts disks:
  - o TempFolder = 0
  - o DriveLetter = 1
  - o VeeamFLRFolder = 2

### **remotingTimeout**

- Type: REG\_DWORD

- Default value: 900 (seconds)
- Override whenever you see "Veeam.Common.Remoting" error after 15 minutes. May appear in logs as:

> Info Networking error: [Exception has been thrown by the target of an invocation.. (additional error message)]

### **VmConnectionType**

- **Applicable only to Veeam Backup and Replication v.10 and newer**
- Type: REG\_SZ
- Description: Set to "**Vix**" if OtherOS networkless restore should use "Vix" connection by default (instead of Web). Do not forget to re-start an FLR session once the key has been applied.

### **InactiveFLRSessionTimeout**

- Type: REG\_DWORD
- Default value: 1800 (seconds)
- Timeout after which Veeam File Explorer closes with "FLR automatically closed because of inactivity." 7200 should be a safe bet to prevent the issue.

### **ReparsePointUpdateLimit**

- Type: REG\_DWORD
- Default value: 1000
- Set it to 0 to completely disable reparse point updates (VA command FileSystem.VmdkUpdateReparsePoints) //This value is supposed to be created on the Veeam box

### **FlrVmToolsWaitingTime**

- Type: REG\_DWORD
- Default value: 600 (seconds)
- Description: defines timeout for virtual appliance guest IP detection

### **FlrApplianceIpWaitingTime**

- Type: REG\_DWORD
- Default value: ? (seconds)
- Description: defines timeout for stabilizing FLR appliance IP address (not the lowercase "p" in Ip).

### **FlrBatchTransfer**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)

- Description: something could be found in SF search

### **LinuxFLRApplianceMemoryLimitMb**

- Type: REG\_DWORD
- Default value: 1024 (Mb)
- Description: FLR appliance memory size.

### **EnableRestoreSNMPTraps**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: Set this to 1 to trigger SNMP traps for Windows and Multi-OS File-Level Recovery.

### **DnsServersList**

- Type: REG\_SZ
- Description: As you know if OtherOS FLR appliance is configured with a static ip-address there are no GUI options to set DNS servers. If you need your OtherOS FLR appliance to have DNS servers set you may specify DNS servers' ip addresses using this key. Use a semi-colon as a delimiter if you want to specify more than one. Might be useful in certain configurations when the appliance has to resolve ESXi servers ip-addresses.
- Example: 172.24.49.141;10.11.12.13

### **ReFSMountMode**

- Type: REG\_DWORD
- Default value: 0
- Description: Registry key applies to v12 only. Create this on the mount server with a value of 1 to force Veeam to mount ReFS disks using VDK, like it did before v12. By default in v12 the Mount Service will try to mount ReFS volumes as VHD mounts instead of the traditional VDK mount. This is to workaround an issue where some configurations could result in a BSOD on the mount server. The new default mount method may however have issues mounting ReFS volumes greater than 64 TB in size being unable to mount properly. The old VDK mount mode can mount ReFS volumes greater than 64 TB.

### **LinuxFLRApplianceKeepAliveForDebugMins**

- Type: REG\_DWORD
- Default value: 0
- Description: If more than 0 keeps OtherOS Helper appliance alive allowing to troubleshoot the issue if it happened on its side, like log in and get the logs.

SureBackup

### **ForceNicInfoLoadingForVm**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: allows us to properly handle the vms in the SureBackup job when we load them from the storage snapshot and if their network adapters are based on a dVswitch

### **SnapshotVmRetryCount**

- Type: REG\_DWORD (0 do not create snapshot in SureBackup, 1+ snapshot creation attempts)
- Default value: 3
- Description: Create reg.key HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup, add REG\_DWORD value name 'Snapshot VmRetryCount'. 'data' 0 to disable snapshot creation in SureBackup. Can be useful VMware issues while snapshot creation (our issue like 75818) 'data' 1 or higher to set number of retries

### **Mode**

- Type: REG\_DWORD (0 Analyze, 1 Wait)
- Default value: 0 (Analyze)
- Description: Create reg.key HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup\Algorithms\PowerOnVm.StableIp, add REG\_DWORD value name 'Mode', 'data' 1 to change the mode to 'wait'.

### **MountLeaseTimeOut**

- Type: REG\_DWORD
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup\
- Default value: 600 (seconds)
- Description: Use to increase mount lease time out for large VMs (if mounting take more than 10 minutes for a single disk).

### **SmartDetect**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: Use to disable 'smart detect'. Create reg.key HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup\Algorithms\PowerOnVm.StableIp

### **RestrictedNetworkSymbols**

- Type: REG\_SZ
- Default value: "~`!@#\$%^&\*+=;'><|?\*:\""
- Description: restrict specific symbols in the network names for vLab

### SupportOpenVmTools

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Allows successful 'Heartbeat' test for VMs with OpenVMtools. Reg .key HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup, HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication\SureBackup

### MaxNetworkNameLength

- Type: REG\_DWORD
- Default value: 60
- Description: Allows to use vNetwork with longer names (34866)

### RemoveBiosUuid

- Type: REG\_DWORD
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup
- Default value: 0 (disabled)
- Description: Enable by setting to 1. Assigns random bios UUID to VM in surebackup (applicable to VMware only). Some applications (i.e. Citrix), might work incorrectly in case two VMs with the same bios UUID under the same vCenter.

### RemoveVmSnapshot

- Type: REG\_DWORD
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup
- Default value: 0 (disabled)
- Description: Set to 1 to skip deleting the snapshot on the restored VM when the Surebackup job completes. For more info, see the [user guide](#).

### UseHibernation

- Type: REG\_DWORD
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\Surebackup\Algorithms\PowerOnVm
- Default value: 0 (False)
- Description: Historically, this key has been implemented to check whether VM in the backup was in hibernated status or not. The check looked the following:  
*If VM is loaded for less than a minute - VM is in Hibernated status and we wait*

*ted additionally for  $\frac{1}{2}$  of Maximum Allow Boot Time.* Although technologies went further and some high-end storages came to the scene. Nowadays, VM being booted in less than a minute - a common scenario. In 9.5 u2 Hibernation is disabled by default (Bug ID 94767). Summing it up, this reg key is now responsible for **making a decision** to wait for additional time (after VM is booted for a minute) or not.

### **UseVhvEnable**

- Type: REG\_DWORD
- Key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup
- Default value: 1 (enabled)
- Description: Set to 0 to consider flags hvh.enable in the vmx file for restored VM. It is used when verified VM has enabled feature 'Enable Windows Virtualization Based Security' (Also referred to as VBS) starting from VMware 6.7 Update 1.

### **AntivirusScanTimeout**

- Type: REG\_DWORD
- Default value: 86400 (24 hrs in seconds)
- Description: By default the mount service will cancel an AV scan that has not finished within a 24 hour period. This registry value controls how long the mount service will allow the scan to run before cancelling it. Value should be set in seconds. The value needs to be placed on the mount server, and then the mount service must be restarted afterwards.

WAN accelerator

Path: HKLM\SOFTWARE\Veeam\Veeam WAN Accelerator

### **UseExtendLogging**

- Type: REG\_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Set on the source WA server

### **WanRootCachePath, HashRepositoryBasePath, HashRepositoryGlobalDedupBasePath**

- Type: REG\_SZ
- Description: Paths specified during installation of the WAN accelerator. See [KB 1828](#)

Encryption

## DisablePublicIPTrafficEncryption

- Type: REG\_DWORD
- Default value: 0
- Description: By default, traffic between different subnets and on public addresses is encrypted. To globally disable network encryption between agents, set to 1

## ForceAgentTrafficEncryption

- Type: REG\_DWORD
- Default value: 0
- Description: To force Veeam encrypt all of its network connections. This setting is for data mover to data mover communication only (for the actual payload transfers), as the rest of communications are always encrypted.

## VEX

### DefaultCASServer

HKLM\SOFTWARE\Veeam\Veeam Backup Reporting

- Type: REG\_SZ
- Description: Added ability to force CAS server for Veeam Explorer for Microsoft Exchange (instead of automatically detecting one)

Requires restarting Veeam Backup Enterprise Manager service

### VexIgnoreCertificateErrors

- Type: DWORD
- Default value: 0
- Description: Set the value to 1 to ignore certificate errors
- **Note:** The key should be set only on related mount server!

## VESP

### SPSToSQLMap

- Type: REG\_SZ
- Description: In some cases Veeam is not able to determine which SQL server backup contains databases with the Sharepoint content when going through the Sharepoint Item Restore wizard. This can happen when they use an alias for their SQL server.  
To determine what Veeam should be looking for, you can check auxiliary metadata in the Task logs, look for SharePointInfo and SqlInfo for both Sharepoint and Microsoft SQL VMs. You can also find that in the .vbm file. It is possible we

haven't even collected any because for example VSS has failed or was disabled.

- How-to:
  - Create `HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\SPToSQLMap\` key. It should be a sibling to the *Veeam Backup and Replication* key, not its child.
  - Add String values, where Name is the Sharepoint server FQDN (if FQDN doesn't work, try NetBIOS), and Data = "<SQL\_SERVER>\<SQL\_INSTANCE>".
  - E.g. Name = `DHPSP1.domain.local` (or e.g. `DHPSP1`), Data = `DHPSPSQL1\SP2013`. If using the default unnamed instance, Data would just be "DHPSPSQL1".
  - If you have multiple SQL servers for a single Sharepoint, separate instance names by ; e.g. `DHPSPSQL1\SP2013;DHPSPSQL2\SP2013`.
  - Add as many as needed if there are multiple Sharepoint servers.
  - Restart Veeam Backup Shell.

### [Example Screenshot](#)

**Warning: the key will not work if Sharepoint and SQL server backups are performed on different platforms, i.e., Sharepoint is backed by VBR and SQL cluster running SQL servers is backed up by Agents, or SP is backed on Vmware and SQL is backed up on Hyper-V**

Warning: the key will not work if Sharepoint and SQL server backups are performed on different platforms, i.e., Sharepoint is backed by VBR and SQL cluster running SQL servers is backed up by Agents, or SP is backed on Vmware and SQL is backed up on Hyper-V.

Use the following workaround: start FLR for Sharepoint VM , start VESP from ribbon and manually specify SQL server and instance holding Sharepoint database.

### Oracle processing

**WARNING:** In the case of Linux [VeeamOracleAgent.xml](#) must be placed not just in /tmp (which is the default), but in the actual path where your [Veeam Oracle Agent binary](#) starts. For Linux, it is /tmp, but can be changed with the **LinAgentFolder** registry. Your config [VeeamOracleAgent.xml](#) **will not be read from /tmp if you change the agent deployment folder to another location**. Move your config file accordingly. Keep in mind that [VeeamOracleAgent.xml](#) cannot be used for VIX, cause it always creates unique sub-folders in /tmp for running our agents (and you can't place this config there).

### DisableOracleProcessing

- Type: REG\_DWORD
- Default value: 0
- Description: Should be added on the guest OS. For Windows: in `HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication` with a value =1.



For Linux: in /tmp create a file VeeamOracleAgent.xml with the following content <config DisableOracleProcessing=1></config>

### OracleSkipNoArchiveLogDB

- Type: REG\_DWORD
- Default value: 0
- Description: Should be added on the guest OS. For Windows: in HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication with a value =1. For Linux: in /tmp create a file VeeamOracleAgent.xml with the following content <config OracleSkipNoArchiveLogDB=1></config>

### OracleTempLogPath

- Type: REG\_SZ
- Default value: <Drive with most free space>:\Veeam\Backup\OracleLogBackup\ In previous versions (unclear which but likely anything prior to 9.5U4), was %programdata%\Veeam\Backup\OracleLogBackup\
- Description: Location where redo log files are stored during backup. Should be added on the guest OS. For Linux: in /tmp create a file VeeamOracleAgent.xml with the following content <config OracleTempLogPath="/location"></config> and make sure that path has permissions for write/read.

### DeleteOracleAbsentLogFiles

- Default value: true
- Description: Helps us to skip absent logs that presented at the standby instance in the dataguard environment while backup/truncate since we still mean them as local ones and obviously fail. Should be added on the guest OS. For Linux: in /tmp create a file VeeamOracleAgent.xml with the following content <config DeleteOracleAbsentLogFiles="false"></config> and make sure that path has permissions for write/read.

### SkipCleanUpIfFail

- Default value: false
- Description: Helps us to leave (not to delete) the database in case of unsuccessful restore try. In order to apply it, we should add the parameter to "C:\ProgramData\Veeam\Backup\OracleExplorer\Config.xml" in such a way :

<OracleExplorer>

<Oracle SkipCleanUpIfFail="True" />

</OracleExplorer>

### LinuxWriteCacheFolder

- Added in: v10
- Type: REG\_SZ
- Default location: /var/tmp
- Description: Path for mount cache on mount host for linux remote mount (via fuse). Useful on oracle restores and a few other linux restore items. Add it on the Mount server

## Cloud Connect

The Veeam Cloud Connect Service frequently rescans the registry, so it is not usually necessary to restart it.

### **CloudConnectionLoggingLevel**

- Type: REG\_SZ
- Veeam version: 12.0
- Default value: 2
- Description: Values 0-6 (from Disabled to Ultimate Detailed). Provides additional logging on VCC activities, and will add more lines to most of the logs related to VCC service. Can be set on the provider and / or on the tenant sides. Might affect VCC server performance so it is suggested to remove the entry after the required data is collected.

### **CloudConnectReportTime**

- Type: REG\_SZ
- Veeam version: 9.0
- Default value:
- Description: specifies the time when the daily report is sent. Use 24h format, local time zone. If the key is not specified - it is expected that VCC report is going to be sent out slightly later each day.

### **CloudConnectBinGfsNotificationSeverity**

- Type: REG\_DWORD
- Veeam version: 9.5U3
- Default value: 2
- Description: regulates the warning message about enabling GFS when CloudB in is turned on the SP side. 0 - disable message; 1 - informational; 2 - warning ; 3 - error; 4 - job fail. Can be also enabled on the tenant side, in which case it overrides a value on the SP side.

## ResolveCloudGatewayAddressesToIPs

- Type: REG\_DWORD
- Default value: 0

- Description: tenant side key, set it to 1 to make job resolve dns name of provider gateway on veeam server instead of letting VeeamAgent to resolve the name - this key helps when Linux VeeamAgent crashes or when there is no working name resolution on the server where VeeamAgent runs.

### **EnableSSLv3Failback**

- Type: REG\_DWORD
- Default value: 0
- Description: By default, SSL 3.0 cannot be used in Veeam Cloud Connect infrastructure starting from Veeam Backup & Replication 9.5. To enable communication over SSL 3.0, use the EnableSSLv3Failback registry value (must be created on the SP and client backup servers).

### **DisableSuccessCloudConnectReport**

- Type: REG\_DWORD
- Default value: 0
- Description: Set value to 1 to disable cloud connect daily report.

### **DisableVpnServerFirewall**

- Type: REG\_DWORD
- Default value: 0
- Description: Set value to 1 to disable Firewall on Cloud NEA. By default, only IP addresses fetched from CloudGateway servers are allowed.

### **CloudConnectionTimeoutSeconds**

- Type: REG\_DWORD
- Default Value: 15 (seconds) before 9.5 U2 (9.5.0.1038)
- Default Value: 180 (seconds)
- Description: Only works on V9.0.0.1491+, do not apply on any older version. Key to extend SSL Connection attempt, if connection attempt times out after 15 seconds. Tenant Side key.

### **PeerCloudConnectionsLimit**

- Type: REG\_DWORD
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gateway Service
- Default Value: 16 (v8) or 64 (v9)
- Description: Allowance for number of tenant connections to a gateway. Key goes on gateway servers only.

### **MaxSimultaneousCloudConnections**

- Type: REG\_DWORD
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gate Service
- Default Value: 256 (v8) or 1024 (v9)
- Description: Set's the number of concurrent streams to a gateway (regardless of tenant count). Key goes on gateway servers only.

### **CloudSvcHost**

- Type: REG\_SZ (string)
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gate Service
- Default Value: list of IPs and names of the VCC server known to the VCC server itself. List is separated using ";". Example: 172.17.18.101;10.7.7.9;myvcc.company.local
- Description: Sets IPs and names for CGW to reach the VCC server. You might want to edit it if the VCC server is not in the same local network with a CGW. CGW service restart is required. NOTE: the key will be repopulated if someone clicks through the CGW settings on the VCC server.

### **UseVpnOverTcp**

- Type: REG\_DWORD
- Default Value: 0
- Description: Set it to 1 if you would like for partial failover to be working over TCP protocol instead of UDP (Could be used for troubleshooting purposes). Should be implemented only on Cloud Provider's Veeam server.

### **EncryptedTenantBackupsOnly**

- Type: REG\_DWORD
- Default Value: 0
- Description: Fails any tenant's backup/BC job if encryption is disabled. Should be implemented only on Cloud Provider's Veeam server.

### **NEACustomIPExclusions**

- Type: REG\_SZ
- Default value:
- Description: Added ability to exclude particular IP addresses in the service provider side network extension appliance firewall. Create registry value under HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication on the service provider side backup server, and specify IP addresses to exclude separated by semicolon.

### **CloudReplicaNoStaticIPsDetectedWarning**

- Type: REG\_DWORD
- Default value: 1
- Description: during the job performance, in the list of operations for a non-Windows VM included in the job, Veeam Backup & Replication will display a warning that no static IP addresses are detected for a VM. If in fact a VM has a static IP address and network mapping settings are specified for a VM, this warning can be ignored. To remove the warning from the job session statistics, on the tenant Veeam backup server, create the registry value CloudReplicaNoStaticIPsDetectedWarning = 0 (DWORD) and restart Veeam Backup Service.

### **DigestsFinalizationTimeoutMin**

- Type: REG\_DWORD
- Default value: 10
- Description: should be added at the tenant's side; the value should be calculated experimentally

### **UseModifiedCloudBackupsUpgradeAlg**

- Type : REG\_DWORD
- Default value: 0
- Description: value 1 enables modified algorithm of the upgrade, when at first tenant sends the metadata with reduced auxdata in OIBs, and then every OIB is being upgraded separately. This key should be applied at the tenant's side.

### **SkipSavingSharePointInfoToVbm**

- Type: REG\_DWORD
- Default value: 0
- Description: value 1 enables the behavior when during the metadata generation we cut sharepoint info from the auxdata. This key should be applied to both sides (tenant and SP) if the backup of the sharepoint VM performs locally and to the cloud.

### **ShowNewVmsColumn**

- Type: REG\_DWORD
- Default value: 0
- Description: value 1 add New VMs column to the report

### **CloudInfrastructureReachingCapacityThresholdMinutes**

- Type: REG\_DWORD
- Default value: 5
- Description: Sets the threshold when "Reaching capacity" Infrastructure status is triggered on Cloud Connect Server.

### **CloudInfrastructureOutOfCapacityThresholdMinutes**

- Type: REG\_DWORD
- Default value: 10
- Description: Sets the threshold when "Out of capacity" Infrastructure status is triggered on Cloud Connect Server.

### **ResourceScanVpnDefaultPeriod**

- Type: REG\_DWORD
- Default value: 15
- Description: Defines how often a VPN connection between NEAs is checked, minutes

### **VCCReplicaIPAddressWaitTimeoutSec**

- Type: REG\_DWORD
- Default value: 600
- Description: in 9.5 update 3a - hotfix for 78793 should be installed. Will be included in 9.5u4. Should be applied on SP side. The key changes the default waiting timeout (10 minutes) for replica IP-address during the failover test. Services restart is not required after the key modification.

### **CloudApplianceDebug**

- Type: REG\_DWORD
- Default value: 0
- Description: value 1 enables detailed parprouted daemon logging in NEA.

### **CloudConnectQuantSizeMb**

- Type: REG\_DWORD
- Default value: 512
- Description: every 10 seconds target agent gets a quota of 512 MB (default value), once this quota is exceeded, target agent throws message Storage size quota exceeded. Waiting for quota increase. This key allows to increase quota size. Use this key if Cloud Connect processing per task reaches the limit of 51,2 MB/s and usage graph on CC repo is showing spikes.

### **CloudConnectLogBackupConcurrentTaskCount**

- Type: REG\_MULTI\_SZ
- Default value: 20 per tenant
- Description: Relevant for Backup Copy Simple Mode, starting from v10 we can backup SQL / Oracle logs to the cloud. An amount of slots allocated to a tenant for such log copy operation can be set here. Use the next notation: Tenant\_Name=an\_amount\_of\_slots, **v10** only.

- Example: Tenant1=10

### CloudConnectQuotaAllocationMode

- Type: DWORD
- Default value: 0
- Description: **v10 or newer**. Possible values 0, 1, 2. This key changes the quota allocation mechanism in Veeam Cloud Connect. The very same key also affects the vCD backup jobs created from a vCloud self-service portal. By default, the Cloud Service allocates a quota every 15 seconds, increasing it to 512 MB ([CloudConnectQuantSizeMb] key). It becomes a bottleneck if data is transferred faster. The key allows VeeamAgent to request the quota necessary for work:
  - o 0 - **Default (pre-v12)**, Cloud Service every 15 seconds increases the quota to 512 MB.
  - o 1 - VeeamAgent.exe itself asks for the required quota.
  - o 2 - **Default value (v12 or newer)**, Hybrid mode, VeeamAgent asks for the required quota size of CloudConnectQuantSizeMb **PREFERRED VALUE** if you plan to change it.

### MaxQuotaAllocationSize

- Type: QWORD
- Default value: 2 000 000 000
- Description: max size of requested storage quota. Used in CloudConnectQuotaAllocationMode = 1. Possible values: 0 - 4 294 967 296

### CloudConnectDisableDiskMounting

- Type: DWORD
- Default value: 0
- Description: set 1 to disable disk mount attempt during replication to cloud (for network mapping). Useful for test machines without OS installed.

### CloudVcdReplicaPreserveMAC

- Type: DWORD
- Default value: 0
- Description: set 1 to preserve MAC addresses for cloud replicas of vCD tenants. Should be set on the SP side.

### CloudConnectCRLCheckMode

- Type: REG\_DWORD
- Default value: 1
- Description: This key controls SSL certificate checks with jobs going to Cloud Connect:

- o 0 - all issues with Cloud Connect certificates will abort the job
- o 1 - default; OfflineRevocation status is ignored, all other errors = failure
- o 2 - ignore OfflineRevocation and Warning: RevocationStatusUnknown errors
- o 3 - ignore all above + PartialChain error.

### **CloudConnectEnableAdditionalBackupSync**

- Type: DWORD
- Default value: 0
- Description: starting from 11a CP3, set 1 to enable synchronization of restore points removed by VCC Retention Job to tenant's VBR (affects GFS restore points mainly). Value should be added on tenant's VBR, no restart is required. See the bug #336142 / 356062

### **CloudConnectEnableVcdAuthenticationCache**

- Type: DWORD
- Default value: 0
- Description: starting from 11a, set to 1 to enable vCD authorization cache, decreases amount of requests VCC sends to vCD when vCD tenants interact with VCC.

### **CloudConnectDisableExtentLoadSelectionMode**

- Type: DWORD
- Default value: 0
- Description: Key for Cloud Connect task scheduling. If the key is 1, while selecting SOBR extent Veeam will ignore extents slots load (if it is less than 100%) and will sort them by free space instead. Scenario: after sorting extents by priority groups (Preferred > Optional > etc.), we will pick an extent with the most free space available. Until all its slots are taken, its load will count as 0. When all its slots are taken, its load will be 100%, and then we will take an extent with the 2nd most free space. See bug 548359

## **Agent Management**

### **AgentManagementValSshTimeout**

- Type: REG\_DWORD
- Default value: 300000 (milliseconds)
- Description: under some circumstances, management SSH connection might be terminated due to timeout. The value allows controlling the timeout. Prior to Backup & Replication v9.5 update 4a timeout is not configurable.

### **SshConnectionCheckElevateOpTimeoutSec**



- Type: REG\_DWORD
- Default value: 10 (seconds)
- **IMPORTANT:** You don't apply the key as a random workaround. You need to make sure your timeout issue is related to sudo or su utility
- Description: this key tracks **sudo** command timeout when rescanning a protection group, or performing various tasks that require elevation on Linux machine managed by Veeam Backup and Replication

### ProtectionGroupIgnoreOwnership

- Type: REG\_DWORD
- Default value: 0 (False)
- **IMPORTANT:** Added in v12 superseding "AgentDiscoveryIgnoreOwnership" key
- Description: if set to 1, allows VBR to forcefully take ownership of the managed Agent or Plugin already owned by another VBR

### EndPointServerSslPort

- Default value: 10005 (decimal)
- Type: REG\_DWORD
- Description: Used to change port on which VBR is listening for managed VAW connections. Especially useful to change it if the customer has Qualys agent or some other app taking default port on the VBR server.

## Plugins

### PluginEmailNotifications

- Type: REG\_DWORD
- Default value: 1
- Possible values:
  - Value: 0 = disable all
  - Value: 1 = disable success (default if key is not present)
  - Value: 2 = disable success, warnings
  - Value: 3 = disable success, failed
  - Value: 4 = enable all
- Description: Successful email notifications are disabled by default to make sure that Veeam B&R won't kill your mailbox due to the email report being generated for every plugin job run. Plugins use global email configuration options.

### ProtectionGroupIgnoreOwnership

- Type: REG\_DWORD
- Default value: 0 (False)
- **IMPORTANT:** Added in v12 superseding "AgentDiscoveryIgnoreOwnership" key

- Description: if set to 1, allows VBR to forcefully take ownership of the managed Agent or Plugin already owned by another VBR

### **DB2PluginReuseStorageTimeMinutes**

- Type: REG\_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for Plugin for DB2 backups

### **SapHanaPluginReuseStorageTimeMinutes**

- Type: REG\_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for SAP HANA Plugin backups

### **SapOraclePluginReuseStorageTimeMinutes**

- Type: REG\_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for SAP on Oracle Plugin backups

### **OracleRMANPluginReuseStorageTimeMinutes**

- Type: REG\_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for Oracle RMAN Plugin backups

### **DbPluginForceExclusiveStorageUsageLimitation**

- Type: REG\_DWORD
- Default value: 0
- Description: change to 1 to enforce exclusive storage usage (not more than one FIB is written to the file SIMULTANEOUSLY. That does not mean that there will be not more than 1 FIB in storage - if they are written one after another - it will store more than one FIB). May be required for repositories that are using gateways (NFS, SMB, Storage Appliances) for better performance

AWS Plug-in for Veeam Backup & Replication

### **PerformanceLogEnabled**

It is **not recommended** to disable Performance Logging to save disk space. Instead, use PerformanceLogArchiveRetainPeriod to retain fewer logs.

This registry value should only be used for troubleshooting and removed before closing the case.

- Type: REG\_DWORD
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default Value: 1
- Possible values:
  - o 0 = Disable Performance Logging
  - o 1 = Enable Performance Logging
- Description:

In AWS PS v5, we implemented Veeam.AWS.Collect.Performance.log, which logs requests and responses to/from [VB client] and [DbProvider client] connected with a particular VB.

This log is located in folder - \*\Veeam\Backup\Plugins\AWS\<VB name>

This key is added just in case to be able to turn the performance log off. Performance log activity will still keep running in the background, but this key allows you to disable writing performance messages to a log, which saves disk space.

### **PerformanceLogArchiveRetainPeriod**

- Type: REG\_DWORD
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default value: 60
- Possible value = (# of days)
- Description:

This key is to set a rotation period for archived Veeam.AWS.Collect.Performance.log, which is used for logging requests and responses to/from [VB client] and [DbProvider client] connected with a particular VB.

Rotation period = The time of archive creation + 7 days + PerformanceLogArchiveRetainPeriod

So the minimum rotation time for archives is 7 days when the PerformanceLogArchiveRetainPeriod is set to 0.

This affects logs located in folder - \*\Veeam\Backup\Plugins\AWS\<VB name>

### **PerformanceLogSize**

- Type: REG\_DWORD
- Path: HKEY\_LOCAL\_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default value: 100
- Possible values: (# in MB)
- Description:

This key sets a maximum size for Veeam.AWS.Collect.Performance.log, which

is used for logging requests and responses to/from [VB client] and [DbProvider client] connected with a particular VB.

This log is located in folder - \*\Veeam\Backup\Plugins\AWS\<VB name>

## Restore To Azure

### **AzureApplianceRmVmSize**

- Type: REG\_SZ
- Default: Standard\_A0
- Version: 9.5
- Desc: Default Azure Appliance size for RM model

### **AzureApplianceRmVmPremiumSizeDefault**

- Type: REG\_SZ
- Default: Standard\_DS1
- Version: 9.5U4
- Desc: Default size for appliance size if premium storage was chosen

### **AzureApplianceRmVmPremiumSizes**

- Type: REG\_MULTI\_SZ
- Default: { "Standard\_DS1", "Standard\_DS2", "Standard\_DS3", "Standard\_DS4", "Standard\_DS5" }
- Version: 9.5U4
- Desc: To specify several available sizes for Veeam to choose from if premium storage was chosen

### **AzureDiskProcessingThreadCount**

- Type: REG\_DWORD
- Default value: 8
- Description: Self-explanatory. A number of agent's threads for a disk processing. Change to 64 in order to get a better performance. Default value 64 will be included into VBR10a (Update 1)

### **AzurePreferPrivateIpAddressesForProxyandLinuxAppliance**

- Type: REG\_DWORD
- Default: 0 (decimal)
- Version: Available by default since 9.5U4
- Description: Determines whether we will attempt to use PrivateIP on Azure Proxy and Linux Appliances for restore to Azure. By default Veeam will only try the Public IPs for the appliances/proxy. If Expressroute or other VPN to Azure is in place, this key is required. **NOT FOR ARCHIVING JOBS. Only for restores to Azure**

Restore to AWS EC2

### **AwsApplianceUsePublicIp**

- Type: REG\_DWORD
- Default: True (1)
- Version: 11
- Desc: Toggles whether we try to use public or private IP on proxy for Restore to EC2

### **AmazonDefaultProxyImage**

- Type: REG\_MULTI\_SZ
- Default:

ubuntu-bionic-18.04-amd64-server-20180522-dotnetcore-2018.07.11@ubuntu@22

\*ubuntu-bionic-18.04-amd64-server\*@ubuntu@22

\*ubuntu\*@ubuntu@22

- Version: 11
- Desc: Specifies the Amazon Marketplace Image for Freezing Job/Restore to EC2 proxy. See [bug 299060](#)

### **AwsSearchAmiMode**

- Type: REG\_DWORD
- Value: 1 or 0 (1 = any AMI; 0 = only amazon-owned)
- Default: 0 (only amazon-owned)
- Version: 11
- Desc: Enables/Disables AMI filtering by owner, by default Veeam only searches through Amazon-owned images.

### **AwsFailIfGptConversionFailed**

- Type: REG\_DWORD
- Default: True (1)
- Version: 12
- Desc: See [bug 447654](#)

### **VmRestoreDisableDsrM**

- Type: REG\_DWORD
- Default: 0
- Version: 12
- Desc: See [bug 363746](#)

Restore to Google GCE

### **GoogleRestoreWithExternallp**

- Type: REG\_DWORD
- Default: True (1)

- Version: 12
- Desc: Restore VM to Google Cloud without using "no-external-ip" parameter during google import. No-external-ip parameter allow to create temporary google instances without public ip.

## Capacity Tier

### CollectCloudEvents

- Type: DWORD
- Value: 0 (default), 1 to enable
- Description: Enables collection of all REST calls during Capacity Tier/Archive Tier operations. **WARNING:** This will produce a lot of logs; treat it like LL6 logging, it should be *targeted*. If you aren't trying to capture a REST call that gets a bad response, you don't need this registry value. **Must be disabled after your test.** See [this guide for more info](#)

### ArchiveFreezingUsePrivateIpForAmazonAppliance

- Type: REG\_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for Amazon appliances. Useful when client do not have public IPs. For example, client could connect by VPN to VPC's subnet which has not Internet access. In this situation appliances could be accessed by internal IPs only. **Use this for archiving to AWS issues.**

### ArchiveUsePrivateIpForAmazonHelperAppliance

- Type: REG\_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for appliances for s3 Repository HealthCheck.

### ArchiveUsePrivateIpForAzureHelperAppliance

- Type: REG\_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for appliances for Azure Repository HealthCheck.

### ArchiveUsePrivateIpForGoogleHelperAppliance

- Type: REG\_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for appliances for Google Repository HealthCheck.

## CustomTempDirPath

- Type: REG\_SZ
- Description: Changes location for certain SOBR related temp files
- Default value: System Variable for %Temp%
- Should be set on the extent(s) desired. For Linux, set on /etc/VeeamAgentConfig. The veeamagent reads this value to know where it can flush index data from memory.
- In v12, this value effects VeeamAgent operations for Capacity Tier dump generation and Capacity Tier files upload (VBM's, AuxData...) and also several cases in the **Linux** installer service as it's installing packages for other components.
- See also: [Bug 715652](#).
- Mentioned in <https://www.veeam.com/kb4283>

## SkipArchiveIndicesForResync

- Type: Multi-String
- Default Value: N/A
- Description: Indexes listed under this registry value will be skipped with rescans. Each value should be on a new line and consist of BackupId:IndexId pairs.

## SOBRArchivingScanPeriod

- Type: REG\_DWORD
- Veeam Version: 9.5u4 or later
- Default value: 4
- Description: Value in hours which defines the periodicity of the automatic Offload to Capacity Tier and Archiving to Archive Tier jobs. Both schedules are independent, but the same reg value is used. Set to any integer value. Might be useful if it's known that the offload speed is slow and the customer doesn't like seeing all the offload jobs stack up.

## SOBRCapacityTierStartOffloadTimeoutMin

- Type: REG\_DWORD
- Veeam Version: 11 or later
- Default value: 240
- Please notice, that key is also related to another SOBRCapacityTierStartOffloadTimeoutMin = **SOBRArchivingScanPeriod** \*60. This rule works, if SOBRCapacityTierStartOffloadTimeoutMin is not set.
- Description: Value in minutes which defines timeout for resources availability for Offload job (also error message "Timed out waiting for backup infrastructure resources to become available (14400 sec)")

## SOBRArchiveS3DisableTLS

- Type: REG\_DWORD
- Veeam Version: 9.5 U4 or later
- Default Value: 0 (disabled)
- Description: Set to 1 to allow connecting to Amazon S3 servers via unsecure HTTP. Needed in test environments and for local S3 storages. Should not be used when using non-local S3 storages

### **SOBRDisableEmailReport**

- Type: REG\_DWORD
- Veeam Version: 9.5u4 or later
- Default Value: 0 (disabled)
- Description: Key disables automatic report sending for SOBR Status. Report may still be manually generated via powershell using the cmdlet **Send-VBRScaleOutBackupRepositoryReport**

### **S3RequestTimeoutSec**

- Type: REG\_DWORD
- Default value: 120 (2 minutes)
- Description: Timeout for a single S3 request. Examples:
  - o "WinHttpQueryDataAvailable: 12002: The operation timed out" errors, especially during out MultipleDeleteObjects portion of ArchiveCleanup.
  - o HTTP exception: WinHttpSendRequest: 12029: A connection with the server could not be established (not always, dependent on context, check the timestamps)
- Increasing S3RequestTimeoutSec may require you to increase the S3RequestRetryTotalTimeoutSec as well, but it largely depends on the situation. Usually this is not necessary as if you have trouble with a single request running into a timeout the total retry timeout won't do anything here. Overall, before increasing any timeouts you should think about what you're trying to achieve. There are very few scenarios where a longer timeout is indeed required, more often than not a timeout is a symptom of another, more important issue and increasing timeouts is like treating cancer with band-aids.

### **S3RequestRetryTotalTimeoutSec**

- Type: REG\_DWORD
- Default value: 1800 (30 minutes)
- Description: Timeout for all the s3 request retries. This is a cumulative timeout that each retry counts against. Whenever Veeam starts an HTTP request retry loop, you will start seeing lines like these in the log:  
 WARN|HTTP request failed, retry in [1] seconds, attempt number [2], total retry timeout left: **[1798]** seconds  
 The "total retry timeout left" is what this parameter controls. If an HTTP request fails with what we consider to be a retrieable error there will be more attempts to send the same request either until it succeeds or until we hit this



global timeout. The retries are performed with an ever increasing pause between them, where the pause is a randomized number in range [t, t+t] with t shifting to the next power of 2 with every retry. For example:

- o First retry will be between 1 and 2 seconds after the failed request,
  - o Second retry will be between 2 and 4 seconds after the previous one,
  - o Third retry will occur after another 4-8 seconds have passed etc.
- The pauses between retries cap out at 120 seconds and if there is less than 120 seconds left until TotalTimeoutSec has run out, the last retry will occur sooner to fit within the total timeout. Pay attention to the thread performing the retries. HTTP request handling is an asynchronous process and there are multiple threads doing it. If at least 1 thread runs out of the TotalTimeoutSec - this will spell the end for all of them (and this makes perfect sense). When reading logs with the retry warnings, make sure to pay attention to the thread you are following. Look at the attempt number as well. If there are 50 lines like the one cited above - that's hardly an issue, just 50 failed requests that succeeded after first retry. This adds at most 100 seconds to the processing time which is technically a lot but oftentimes can be negligible in the grand scheme of things.

### S3ConcurrentTaskLimit

#### **ETS Note:**

**Before editing this value, make sure the Object Storage Repository tasks are not set to Unlimited.**

**Reduce Object Storage Repository tasks before using this option.**

- Type: REG\_DWORD
- Default value: 64
- Description: Amount of parallel HTTP requests for data upload (tasks) to the S3-compatible object storage (archive tier). Applied either on VBR server and applied automatically to all extents/gates, or can be set specifically on the extent/gate. Key on VBR server has a higher priority. (NOT APPLICABLE TO AZURE)
- Does not affect number of offload tasks, only controls HTTP requests within a given task. Use if we get an API Too Many Requests issue or disconnect. Will not help with Restores to AWS. Value is applied to agents when they start and maintained for the lifetime of the agent. New tasks will automatically take the new value. (Note: **Tasks**, not jobs. So if you change it mid-offload, the Gate agents for offload will not use the new value, but the Gate.Cleanup agent will)
- Highly recommended to upgrade to **V11** prior usage. Streams calculation has been improved there. In v10 might have no effect.

### S3VerboseLoggingMode

- Type: REG\_DWORD
- Default value: 0

- **For AWS, S3 Compatible, and Wasabi only.** *For Azure, see AzureBlobVerboseLoggingMode below.*
- This needs to be set on S3 gateways. When value is set to 1, VeeamAgent logs S3 HTTP requests and responses. Careful: this may generate a lot of logs
- Available starting with **v12**. Available for v11a in a custom build of VeeamAgent.
- Consider that this parameter generates **a lot** of extra information in log files. Consider using **AgentMaxLogCount** and **AgentMaxLogSize** parameters to make sure you actually manage to capture what you are looking for. **Make sure to disable verbose logging and revert logging changes as soon as you've collected the data you need.**

### **ArchiveFreezingUsePrivateIpForAzureAppliance**

- Type: REG\_DWORD
- Default: 0 (decimal)
- Description: Works for Archive Tier proxy appliance. Forces Veeam to connect to the private IP of the Archive Tier Proxy Appliance VM. If Expressroute or other VPN to Azure is in place, this key is required. **Use this for Archiving to Azure issues**

### **ArchiveFreezingApplianceRootVolumeSize**

- Type: REG\_DWORD
- Default: 30 (decimal)
- Description: Works for Amazon and Azure Archive Tier proxy appliances. Sets the root volume size for Archive tier proxy appliance, can be used if default 30 GB size is too low. See also bug 299060. **Use this for Archiving to Azure or Amazon issues**

### **AzureRestApiRetryCount**

- Type: REG\_DWORD
- Default value: 20
- Description: Number of times we retry Azure calls

### **AzureRestApiRetryTimeoutSec**

- Type: REG\_DWORD
- Default value: 30 (seconds)
- Description: Timeout between retries

### **AzureConcurrentTaskLimit**

#### **ETS Note:**

**Before editing this value, make sure the Object Storage Repository tasks are not set to Unlimited.**

**Reduce Object Storage Repository tasks before using this option.**

- Type: REG\_DWORD

- Default value: 64
- Description: Amount of parallel HTTP requests for data upload (tasks) to Azure archive tier. Applied either on VBR server and applied automatically to all extents/gates, or can be set specifically on the extent/gate. Key on VBR server has a higher priority. Exactly the same as S3ConcurrentTaskLimit, but for Azure. Everything that applies to S3ConcurrentTaskLimit applies to this value, but it's exclusive to Azure.

### AzureBlobVerboseLoggingMode

- Type: REG\_DWORD
- Default Value: 0
- **For Azure type object storage only.** For AWS, S3, or Wasabi, see S3VerboseLoggingMode above.
- Description: The key is set on Azure Blob gateways. When value is 1 VeeamAgent logs Azure Blob requests\response. Be careful - the key may generate many logs.
- For Linux, use **/etc/VeeamAgentConfig**: AzureBlobVerboseLoggingMode = 1
- Available starting with **v12 only**.
- Consider that this parameter generates **a lot** of extra information in log files. Consider using **AgentMaxLogCount** and **AgentMaxLogSize** parameters to make sure you actually manage to capture what you are looking for. **Make sure to disable verbose logging and revert logging changes as soon as you've collected the data you need.**

### CapacityExtentRestoreSlotsCount

- Type: REG\_DWORD
- Default value: 4 (concurrent restore slots)
- Version: 10a only. Will be invalidated by UI option in v11 and later.
- Description: How many restores are possible from Object Storage Repositories not attached to a SOBR

### StorageOffloadLockConflictResolveTimeoutInSec

- Type: REG\_DWORD
- Default value: 18000 (5 \* 60 \* 60)
- Version: 11aCP3Stage2 and later
- Description: Controls the source job waiting time for non-interruptible tiering operations (like a cleanup or immutability increase).

### RetrievingHostCertificateTimeoutSec

- Type: REG\_DWORD
- Default value: 5
- Version: 12 and later
- Description: Timeout for Network.RetrieveSslCertificate agent request, increase if agent can't retrieve the certificate from s3 fast enough

## Background Checkpoint Removal

There are other options that can be set (which may be seen in logs), however these require discussion or escalation before they can be changed.

They will not be listed here.

### **CheckpointRemovalJobStartTimeHours**

- Type: REG\_DWORD
- Default Value: 3
- Version: 12.2
- Description: The background job restart time hour. Expressed as the hour on a 24h clock. Example: 3 = 3am (default), 14 = 2pm.

### **CheckpointRemovalJobStartTimeMins**

- Type: REG\_DWORD
- Default Value: 0
- Version: 12.2
- Description: The background job restart time minute. Expressed as the minute in the hour.

## External Repositories

For this section, please double check that you are indeed looking to modify behavior of [External Repositories](#). Do not confuse this with Object Storage Repositories.

More values available on [BrainStorage](#), but consult with T2 first before trying to implement randomly

### **ExternalRepositoryCacheWindowsRoot**

- Type: REG\_SZ
- Default Value: C:\ProgramData\Veeam\ExternalCache
- Version: 9.5u4 and later
- Description: Change path for [Cache Location](#) on Gateway Server specified for the External Repository. Must be full and proper Windows Path. Value is **GLOBAL**.

### **ExternalRepositoryCacheLinuxRoot**

- Type: REG\_SZ
- Default Value: /var/veeam/ExternalCache
- Version: 9.5u4 and later
- Description: Change path for [Cache Location](#) on Gateway Server specified for the External Repository. Must be full and proper Windows Path. Value is **GLOBAL**.

## Malware Detection

This section is for malware detection options added in VBR 12. Does not apply to earlier versions.

### **MalwareScanDisableExtensionScanEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent ExtensionScan events from being raised - while Guest Indexing Data scan option is active.

#### **MalwareScanDisableRenamedFilesEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent RenamedFiles events from being raised - while Guest Indexing Data scan option is active.

#### **MalwareScanDisableDeletedUsefulFilesEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent BulkDeletion events from being raised - while Guest Indexing Data scan option is active.

#### **MalwareScanDisableRansomNotesEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent RansomNotes events from being raised - while Inline entropy analysis option is active.

#### **MalwareScanDisableEncryptionDataEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent EncryptedFile events from being raised - while Inline entropy analysis option is active.

#### **MalwareScanDisableYaraEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent Yara events from being raised - while Rule-based detection option is active.

#### **MalwareScanDisableAntivirusEvents**

- Type: REG\_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent AntivirusScan events from being raised - while Antivirus scan option is active.
- [no\\_karma](#)
- [Edit Labels](#)

3 Comments

1.

[Mihai Stanculescu](#)

Can also UIMaxConcurrentTasks reg key be added in the list?

(<https://forums.veeam.com/veeam-backup-replication-f2/feature-request-increase-concurrent-task-count-t76159.html>). Seems to be used for increasing concurrent tasks more than 128

- o [Reply](#)
- o [Sep 25, 2024](#)

2.

[Dylan Locke](#)

Hi Team, since 12.2 and the change in how Checkpoint removal is done as it's a background task, in the logs I see the following registry keys mentioned:

Registry key CheckpointRemovalParallelism is 512

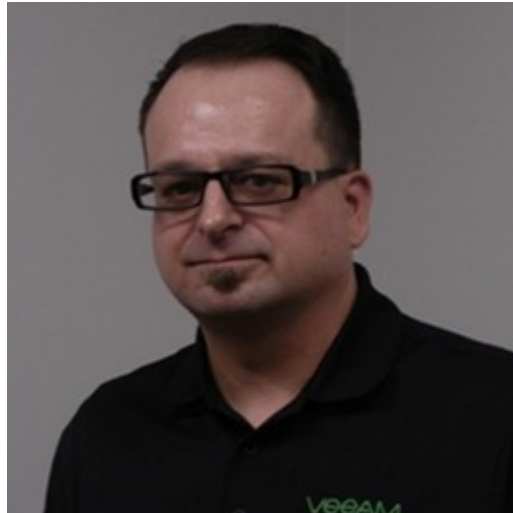
Registry key ObjectStorageDirectModeCheckpointRemovalTaskCount is 16

Registry key CheckpointRemovalJobStartTimeHours is 3

Registry key CheckpointRemovalJobStartTimeMins is 0

is it possible for these to be added to the list with a summary of each key, their names give away most of what they do but I was thinking a description of them and use case might be best.

- o [Reply](#)
- o [Oct 09, 2024](#)



o

[Justin Hendren](#)

I can add the following as they are allowed to be changed, the rest require RnD discussion (plus a couple more you do not know about).

For those with RnD, they *should not be changed without discussion*. They limit the total parallel deletion tasks on the VBR server, and the number of parallel deletion tasks per host (repository). These can cause issues.

These I can add as they were mentioned in training and have been used in other cases.

CheckpointRemovalJobStartTimeHours

CheckpointRemovalJobStartTimeMins

- [Reply](#)
- [Oct 10, 2024](#)

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